

## [GCO101] INDUSTRIAL ORGANISATION

### GENERAL INFORMATION

<b>Studies</b>	DEGREE IN ENGINEERING IN ECO-TECHNOLOGY IN INDUSTRIAL PROCESS		<b>Subject</b> ?
<b>Semester</b>	1	<b>Course</b>	3
<b>Character</b>	COMPULSORY		<b>Mention / Field of specialisation</b>
<b>Plan</b>	2017	<b>Modality</b>	Adapted Face-to-face
<b>Credits</b>	4,5	<b>Hours/week</b>	2.11
		<b>Language</b>	ENGLISH
		<b>Total hours</b>	38 class hours + 74.5 non-class hours = <b>112.5 total hours</b>

### PROFESSORS

ISASTI LAZKANO, ARGIDER

### REQUIRED PREVIOUS KNOWLEDGE

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

### SKILLS

#### VERIFICA SKILLS

##### SPECIFIC

**GCIN11** - Applied knowledge of company organisation.

##### GENERAL

**G\_CB6** - To be able to respond adequately in complex situations or situations that call for innovative solutions in both the academic field and work environments within their field of study;

**GCCG1** - To have the knowledge, understanding and ability to apply the laws pertaining to Ecotechnology Engineering in Industrial Processes; to be able to comply with the specifications, standards and regulations in force.

**GCCG4** - To know how to perform measurements, calculations, valuations, studies, reports, task planning, and other activities pertaining to the field of Ecotechnology Engineering in Industrial Processes

**GCCG5** - To be able to analyse and assess the social and environmental impact of technical solutions.

**GCCG6** - To understand and apply the fundamentals of economics and human resource management, organisation and project planning in Ecotechnologies

##### 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\_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

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

### 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

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

*CH*

*NCH*

*TH*

5 h.

5 h.

#### EVALUATION SYSTEM

Self-assessment

*W*

50%

Co-assessment

50%

#### MAKE-UP MECHANISMS

*(No mechanisms)*

**Comments:** Assessment of the acquired transversal skills:  
 Followed methodology to solve the project: team work, decision making methods, conflict management... Project management: definition of objectives, planning,... Written and oral communication

**Comments:** Continuous assessment. The project is managed through the tutoring meetings and the meetings held with the experts, errors are corrected and the precise guidelines are given to overcome the project.

**CH - Class hours:** 0 h.

**NCH - Non-class hours:** 5 h.

**TH - Total hours:** 5 h.

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

**LEARNING ACTIVITIES**

*CH*

*NCH*

*TH*

Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

5 h.

5 h.

**EVALUATION SYSTEM**

*W*

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

**MAKE-UP MECHANISMS**

*(No mechanisms)*

**Comments:** Continuous assessment. The project is managed through the tutoring meetings and the meetings held with the experts, errors are corrected and the precise guidelines are given to overcome the project.

**Comments:** Assessment of the acquired transversal skills:

Followed methodology to solve the project: team work, decision making methods, conflict management... Project management:

definition of objectives, planning,... Written and oral communication

**CH - Class hours:** 0 h.

**NCH - Non-class hours:** 5 h.

**TH - Total hours:** 5 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 and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

4 h.

4 h.

**EVALUATION SYSTEM**

*W*

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

**MAKE-UP MECHANISMS**

*(No mechanisms)*

**Comments:** Continuous assessment. The project is managed through the tutoring meetings and the meetings held with the experts, errors are corrected and the precise guidelines are given to overcome the project.

**Comments:** Assessment of the acquired transversal skills:

Followed methodology to solve the project: team work, decision making methods, conflict management... Project management:

definition of objectives, planning,... Written and oral communication

**CH - Class hours:** 0 h.

**NCH - Non-class hours:** 4 h.

**TH - Total hours:** 4 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 and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams

4 h.

4 h.

**EVALUATION SYSTEM**

*W*

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

100%

**MAKE-UP MECHANISMS**

*(No mechanisms)*

**Comments:** Continuous assessment. The project is managed through the tutoring meetings and the meetings held with the experts, errors are corrected and the precise guidelines are given to overcome the project.

**Comments:** Assessment of the acquired transversal skills:

Followed methodology to solve the project: team work, decision

making methods, conflict management... Project management:  
definition of objectives, planning,... Written and oral communication

**CH - Class hours:** 0 h.  
**NCH - Non-class hours:** 4 h.  
**TH - Total hours:** 4 h.

**RGC325 Identify and apply the different techniques and tools for the overall improvement of the productive flow of an industrial plant, which will reduce the productive waste**

**LEARNING ACTIVITIES**

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
Individual study and work, tests and evaluations and check points	2 h.	8 h.	10 h.
Classroom presentations of relevant concepts and procedures in participatory environments	10,5 h.		10,5 h.
Individual and team solving of exercises, problems, and practices	12,5 h.	8 h.	20,5 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams		17,5 h.	17,5 h.

**EVALUATION SYSTEM**

*W*

Individual written and oral tests to assess technical skills of the subject	30%
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	40%
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	30%

**MAKE-UP MECHANISMS**

Individual written and oral tests to assess technical skills of the subject

**Comments:** All exercises must be delivered on time. Minimum of 4 is required to calculate the average and get the final mark. If this minimum is not reached, there is a second chance to deliver it, but maximum of 5 will be the final mark.

**CH - Class hours:** 25 h.  
**NCH - Non-class hours:** 33,5 h.  
**TH - Total hours:** 58,5 h.

**RGC326 Calculate productive efficiency and apply techniques and tools to increase it**

**LEARNING ACTIVITIES**

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
Individual study and work, tests and evaluations and check points	2 h.	8,5 h.	10,5 h.
Individual and team exercises	3,5 h.	4 h.	7,5 h.
Classroom presentations of relevant concepts and procedures in participatory environments	7,5 h.		7,5 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams		10,5 h.	10,5 h.

**Comments:** All exercises must be delivered on time. Minimum of 4 is required to calculate the average and get the final mark. If this minimum is not reached, there is a second chance to deliver it, but maximum of 5 will be the final mark.

**EVALUATION SYSTEM**

*W*

Individual written and oral tests to assess technical skills of the subject	30%
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	40%
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	30%

**MAKE-UP MECHANISMS**

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

**Comments:** All exercises must be delivered on time. Minimum of 4 is required to calculate the average and get the final mark.

**CH - Class hours:** 13 h.  
**NCH - Non-class hours:** 23 h.  
**TH - Total hours:** 36 h.

## CONTENTS

### 1.Characteristics of Lean Manufacturing

1. Origin of Lean Manufacturing.
- 2.Lead Time and inventory.
- 3.Added value and inefficiency

### 2.Plant distribution and Cell design

- 1.Types of plant distribution
- 2.Methodology for the design of plant distribution
- 3.Cell design

### 3.Efficiency

1. Types of waste and efficiency.

### 4.Process stability

- 1.5S.
- 2.TPM.
- 3.Standard operations.

### 5.Rapid changeover

- 1.SMED.
- 2.REDEX case.

### 6.JIT methods

- 1.FIFO lane.
- 2.KANBAN Supermarkets.

## LEARNING RESOURCES AND BIBLIOGRAPHY

### Learning resources

Subject notes  
Moodle Platform  
Video projections  
Class presentations

### Bibliography

[http://katalogoa.mondragon.edu/janium-bin/janium\\_login\\_opac\\_re\\_Ink.pl?grupo=EKOTEKNOLOGIA31&ejecuta=25](http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_Ink.pl?grupo=EKOTEKNOLOGIA31&ejecuta=25)