

## [GCN301] METHODOLOGICAL FOUNDATIONS

### GENERAL INFORMATION

|                  |  |                   |                 |  |  |
|------------------|--|-------------------|-----------------|--|--|
| <b>Studies</b>   | DEGREE IN ENGINEERING IN<br>ECO-TECHNOLOGY IN INDUSTRIAL PROCESS |                   | <b>Subject</b>  | INDUSTRIAL PROJECTS                      |  |
| <b>Semester</b>  | 1  | <b>Course</b>     | 1               | <b>Mention / Field of specialisation</b> |  |
| <b>Character</b> | COMPULSORY   |                   | <b>Language</b> | EUSKARA                                  |  |
| <b>Plan</b>      | 2022   | <b>Modality</b>   | Face-to-face    | <b>Total hours</b>                       | 62 class hours + 88 non-class hours = <b>150 total hours</b> |
| <b>Credits</b>   | 6  | <b>Hours/week</b> | 3.44            |  |  |

### 2030 AGENDA GOALS



### PROFESSORS

HERRERO DORCA, NURIA

### REQUIRED PREVIOUS KNOWLEDGE

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

### LEARNING RESULTS

| LEARNING RESULTS  | KC | SK | AB | ECTS     |
|---|----|----|----|----------|
| <b>G-RTR1</b> - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - becoming aware of respect for human rights and fundamental rights, and analyzing and assessing the impact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and/or avant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies with a high degree of autonomy |    | x  |    | 3,92     |
| <b>G-RTR2</b> - To express information, ideas and the arguments that support them in an orderly, clear and coherent manner, orally and in writing, based on quality information, self-made or obtained from different sources, using inclusive and non-discriminatory language  |    | x  |    | 2,08     |
| <b>Total:</b>   |    |    |    | <b>6</b> |

KC: Knowledge or Content / SK: Skills / AB: Abilities

### SECONDARY LEARNING RESULTS

#### 1RGC192 (1 sem)

#### 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. | 17 h. | 22 h. |

#### EVALUATION SYSTEM

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

W

100%

#### MAKE-UP MECHANISMS

(No mechanisms)

**CH - Class hours:** 5 h.

**NCH - Non-class hours:** 17 h.

**TH - Total hours:** 22 h.

#### 1RGC193 (1 sem)

#### 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 |      | 12 h. | 12 h. |
| Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects   | 4 h. |       | 4 h.  |

Carrying out exercises and solving problems individually and/or in teams 4 h. 6 h. 10 h.

**EVALUATION SYSTEM**

**W**

**MAKE-UP MECHANISMS**

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

100%

(No mechanisms)

**CH - Class hours:** 8 h.

**NCH - Non-class hours:** 18 h.

**TH - Total hours:** 26 h.

**1RGC194 (1 sem)**

**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.

Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints

6 h.

12 h.

18 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

4 h.

4 h.

**EVALUATION SYSTEM**

**W**

**MAKE-UP MECHANISMS**

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%

(No mechanisms)

**CH - Class hours:** 10 h.

**NCH - Non-class hours:** 16 h.

**TH - Total hours:** 26 h.

**1RGC190 (1 sem)**

**LEARNING ACTIVITIES**

**CH**

**NCH**

**TH**

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams

5 h.

13 h.

18 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

10 h.

10 h.

Carrying out exercises and solving problems individually and/or in teams

9 h.

7 h.

16 h.

**EVALUATION SYSTEM**

**W**

**MAKE-UP MECHANISMS**

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

100%

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

**CH - Class hours:** 24 h.

**NCH - Non-class hours:** 20 h.

**TH - Total hours:** 44 h.

**1RGC191 (1 sem)**

**LEARNING ACTIVITIES**

**CH**

**NCH**

**TH**

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in

5 h.

15 h.

20 h.

interdisciplinary contexts, real and/or simulated, individually and/or in teams

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

4 h.

4 h.

Carrying out exercises and solving problems individually and/or in teams

2 h.

2 h.

4 h.

Role-playing games

4 h.

4 h.

#### **EVALUATION SYSTEM**

*W*

#### **MAKE-UP MECHANISMS**

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

100%

*(No mechanisms)*

**CH - Class hours:** 15 h.

**NCH - Non-class hours:** 17 h.

**TH - Total hours:** 32 h.

## **CONTENTS**

1. Teamwork 2. Written communication in the engineering field 3. Oral communication in the field of engineering 4. POPBL Methodology 5. ODS

## **LEARNING RESOURCES AND BIBLIOGRAPHY**

### **Learning resources**

[!] *Plataforma Moodle*

[!] *Apuntes de la asignatura*

[!] *Presentaciones en clase*

[!] *Proyección de videos*

### **Bibliography**

[http://katalogoa.mondragon.edu/janium-bin/janium\\_login\\_opac\\_re\\_Ink.pl?grupo=EKOTEKNOLOGIA11&ejecuta=25&\\_ST](http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_Ink.pl?grupo=EKOTEKNOLOGIA11&ejecuta=25&_ST)