

[GCB301] PHYSICS I

GENERAL INFORMATION

Studies	DEGREE IN ENGINEERING IN ECO-TECHNOLOGY IN INDUSTRIAL PROCESS		Subject	PHYSICS
Semester	1	Course	1	Mention / Field of specialisation
Character	BASIC TRAINING		Language	EUSKARA
Plan	2022	Modality	Face-to-face	Total hours 77 class hours + 73 non-class hours = 150 total hours
Credits	6	Hours/week	4.28	

2030 AGENDA GOALS



PROFESSORS

FERNANDEZ LIZARRIBAR, GARBIÑE
SALABERRIA CALVILLO, HAIZEA

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS

	KC	SK	AB	ECTS
G-RA03 - To understand and master the basic concepts of the general laws of mechanics, and their application to solve engineering problems		x		5,4
G-RTR1 - 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		0,36
G-RTR2 - 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		0,24

Total: 6

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

SECONDARY LEARNING RESULTS

1RGC192 (1 sem)

LEARNING ACTIVITIES

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

CH 2 h. NCH 1 h. TH 3 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: 2 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 3 h.

1RGC193 (1 sem)

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

RGC105

[!] Modelizar, calcular y examinar el equilibrio estático de los sólidos

LEARNING ACTIVITIES

CH

NCH

TH

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

2 h.

8 h.

10 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

5 h.

5 h.

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

15 h.

15 h.

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

8 h.

4 h.

12 h.

Practical work in workshops and/or laboratories, individually and/or in teams

3 h.

3 h.

EVALUATION SYSTEM

W

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

10%

Individual written and/or oral tests or individual coding/programming tests

80%

Self-assessment

10%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 25 h.

NCH - Non-class hours: 20 h.

TH - Total hours: 45 h.

RGC106 [!] Identifica, calcula y analiza el movimiento de partículas y sólidos, así como los sistemas de fuerza necesarios para producirlos			
LEARNING ACTIVITIES	CH	NCH	TH

Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	7 h.	15 h.	22 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		8 h.	8 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	27 h.		27 h.
Carrying out exercises and solving problems individually and/or in teams	16 h.	9 h.	25 h.
Practical work in workshops and/or laboratories, individually and/or in teams		8 h.	8 h.

EVALUATION SYSTEM

W

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

10%

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

10%

Individual written and/or oral tests or individual coding/programming tests

80%

MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

CH - Class hours: 50 h.

NCH - Non-class hours: 40 h.

TH - Total hours: 90 h.

1RGC190 (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

3 h.

3 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)

CH - Class hours: 0 h.

NCH - Non-class hours: 3 h.

TH - Total hours: 3 h.

1RGC191 (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

3 h.

3 h.

EVALUATION SYSTEM

W

Self-assessment

50%

Co-assessment

50%

MAKE-UP MECHANISMS

(No mechanisms)

CH - Class hours: 0 h.

NCH - Non-class hours: 3 h.

TH - Total hours: 3 h.

CONTENTS

0. Basic concepts.1. Statics.2. Kinematics.3. Particle dynamics.4. Work and energy.5. Rigid solid dynamics.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

[!] *Plataforma Moodle*
[!] *Presentaciones en clase*
[!] *Realización de prácticas en laboratorio*
[!] *Transparencias de la asignatura*
[!] *Programas*

Bibliography

http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in_k.pl?grupo=EKOTEKNOLOGIA11&ejecuta=10&_ST