

[GIA304] STATISTICAL METHODS

GENERAL INFORMATION

Studies	DEGREE IN COMPUTER ENGINEERING	Subject	MATHEMATICS
Semester	2	Course	2
Character	BASIC TRAINING	Mention / Field of specialisation	
Plan	2022	Modality	Face-to-face
Credits	6	Language	CASTELLANO
		Total hours	93 class hours + 57 non-class hours = 150 total hours

2030 AGENDA GOALS



PROFESSORS

ROMAN TXOPITEA, IBAI
UBARRECHENA BELANDIA, ARITZ

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GIR206 - To solve mathematical problems that may arise in engineering, demonstrating the ability to apply knowledge about: statistics			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

RGI215 [!] *Sabe modelar la relación de dependencia entre una variable de respuesta y una o varias variables explicativas*

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.	3 h.	8 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	19 h.	12 h.	31 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	1 h.		1 h.

EVALUATION SYSTEM

W

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	15%
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	38%
Prototype / Product	47%
Comments: Minimum grade of the practice: 5 Project evaluation based on technical rubric	

MAKE-UP MECHANISMS

Prototype / Product
Comments: Students who have not achieved a grade of 5 in practice can make it up in the semester project. Project: There will not be any retake of the individual defense.

CH - Class hours: 25 h.
NCH - Non-class hours: 15 h.
TH - Total hours: 40 h.

2RGI292 (2 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 2,25 h.

NCH ,75 h.

TH 3 h.

EVALUATION SYSTEM

W

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

 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

 Prototype / Product

20%

 50%

 30%

MAKE-UP MECHANISMS

(No mechanisms)

Comments: Continuous assessment.

CH - Class hours: 2,25 h.

NCH - Non-class hours: ,75 h.

TH - Total hours: 3 h.

RGI214 [I] Es capaz de describir un conjunto de datos, e inferir información relativa a una población partiendo de una muestra aleatoria

LEARNING ACTIVITIES

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

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

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

CH 3 h.

NCH 2 h.

TH 5 h.

 24 h.

 16 h.

 40 h.

 30 h.

 20 h.

 50 h.

EVALUATION SYSTEM

W

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

Comments: Minimum grade: 5

MAKE-UP MECHANISMS

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

Comments: "Students with less than 5 in the Control point must retake the exam. Control point value will be 25% and retake 75%."

CH - Class hours: 57 h.

NCH - Non-class hours: 38 h.

TH - Total hours: 95 h.

2RGI293 (2 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 2,25 h.

NCH ,75 h.

TH 3 h.

EVALUATION SYSTEM

W

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

 Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree

20%

 50%

MAKE-UP MECHANISMS

(No mechanisms)

project, master's thesis, challenges and problems
 Prototype / Product 30%
Comments: Continuous assessment. It may be asked to redo the document.

CH - Class hours: 2,25 h.
NCH - Non-class hours: ,75 h.
TH - Total hours: 3 h.

2RGI290 (2 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	2,25 h.	,75 h.	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	20%
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	50%
Prototype / Product	30%

(No mechanisms)

Comments: Continuous assessment.

CH - Class hours: 2,25 h.
NCH - Non-class hours: ,75 h.
TH - Total hours: 3 h.

2RGI294 (2 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	2 h.	1 h.	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	20%
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	50%
Prototype / Product	30%

(No mechanisms)

Comments: Continuous assessment.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

2RGI291 (2 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		2,25 h.	,75 h.	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	20%	(No 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	50%			
Prototype / Product	30%			
Comments: Continuous assessment.				
CH - Class hours: 2,25 h.				
NCH - Non-class hours: ,75 h.				
TH - Total hours: 3 h.				

CONTENTS

1. Descriptive Statistics
 - 1.1 Measures of position and dispersion.
2. Theoretical Foundations of Statistics
 - 2.1 Probability.
 - 2.2 Discrete Random Variables.
 - 2.3 Continuous Random Variables.
3. Inferential Statistics
 - 3.1 Confidence intervals.
 - 3.2 Hypothesis testing.
4. Linear regression.

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	https://labur.eus/biblio-gia304
Moodle Platform	
Specific Master Software	