

Course guide

Year 2024/2025 281004 - Statistics

Information about the subject

Degree: Bachelor of Sciences of Physical Activity and Sport

Faculty: Faculty of Physical Activity and Sport Sciences

Code: 281004 Name: Statistics

Credits: 6,00 ECTS Year: 1 Semester: 2

Module: 1) Common Basic Training Module.

Subject Matter: Statistics Type: Basic Formation

Field of knowledge: Applied Science and Managementand

Department: Basic Sciences and Cross-disciplinary Subjects

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

PRICA <u>Gustavo Daniel Represas Lobeto</u> (Responsible Lecturer) gd.represas@ucv.es





Module organization

1) Common Basic Training Module.

Subject Matter	ECTS	Subject	ECTS	Year/semester
Psychology	12,00	Basic Psychology	6,00	1/1
		Sports Psychology	6,00	2/1
Human Anatomy	6,00	Human Anatomy	6,00	1/1
Biochemistry	6,00	Biochemistry	6,00	1/1
Human Physiology	6,00	Human Physiology	6,00	1/2
Statistics	6,00	Statistics	6,00	1/2
Sociology	6,00	Sociology. Sports Sociology	6,00	2/2
History of physical activity	6,00	History of Physical Activity	6,00	2/2





Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Students will be able to make a descriptive stadistical analisys and interpret the results correctly.
- R2 Students will be able to identify the main probability distributions and use them for solving real problems.
- R3 Students will be able to apply inferential techniques and interpret the results correctly.
- R4 Students will be able to solve practical problems by means of statistical software.
- R5 Understand research articles in which statistical methods have been used and be able to rigorously transmit their content.





Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

GENERAL		Weighting			
	1	2	3	4	
CG1	Understanding scientific literature in English and other important languages widely used in the scientific field achieving a good management of information	X			
CG2	Ability to apply information technology and communication (ICT)		x		
CG3	Develop skills to solve problems through decision-making			x	
CG4	Transmit any information regarding the contents of body expression both in writing and orally	X			
CG5	Plan and organize any activity efficiently	X			
CG7	Be capable of critical reasoning using the knowledge gained			x	
CG9	Knowing and complying with the professional ethics necessary to work	x			
CG10	Develop skills to adapt to new situations and autonomous learning			x	
CG11	Develop skills for creativity, initiative and entrepreneurship				
CG13	Being able to apply theoretical knowledge in practice			x	
CG14	Use Internet well as communication and as a source of information		x		
CG18	Being able to assess themselves		x		
CG19	Developing habits aiming at obtaining excellence and quality at work	x			





SPECIFIC		Weighting					
		1		2	3		4
CE1	Knowing and understanding the contents within the scope of Physical Activity and Sports Science						x
CE2	Acquiring the basic scientific knowledge to different areas of Physical Activity and Sports and understanding literature in the field of physical Activity sports in English and in the other important languages widely used in the scientific field achieving a good management of information				X		

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5	60,00%	Written/oral and/or practical tests.
R1, R2, R3	15,00%	Completion of a project.
R1, R2, R3, R4, R5	5,00%	Student self-assessment.
R3, R4, R5	20,00%	Autonomous work.

Observations

To pass the subject in the first enrolment will be mandatory:

Get a minimum mark of 5.

Students may keep the assessment instruments passed during the 3 years following the first enrolment.

According to article 4.2. of the UCV Assessment Guidelines, the limit for absences that may be due to eventualities (medical consultation, bureaucratic procedures...) that do not have to be justified, is 30%.





Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Exhibition of contents by the teacher.
- M3 Resolution of problems and cases.
- M5 Discussion in small groups.
- M6 Practical lesson.
- M7 Internship assistance.



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IN-CLASS LEARNING ACTIVITIES

LEARNING OUTCOMES	HOURS	ECTS
R1, R2, R3, R4, R5	21,00	0,84
R1, R2, R3, R4, R5	9,00	0,36
R1, R2, R3, R4, R5	5,00	0,20
R1, R2, R3, R5	25,00	1,00
	60,00	2,40
	LEARNING OUTCOMES R1, R2, R3, R4, R5 R1, R2, R3, R4, R5 R1, R2, R3, R4, R5 R1, R2, R3, R5	LEARNING OUTCOMES HOURS R1, R2, R3, R4, R5 21,00 R1, R2, R3, R4, R5 9,00 R1, R2, R3, R4, R5 9,00 R1, R2, R3, R4, R5 5,00 R1, R2, R3, R4, R5 25,00 60,00





LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK: Problem solving. Preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring.	R4, R5	31,00	1,24
AUTONOMOUS WORK: Study, Individual preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring. Platform activities or other virtual spaces.	R1, R2, R3, R4, R5	59,00	2,36
TOTAL		90,00	3,60

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
Unit 1. Descriptive Statistics	Lesson 1. Variables and frequencies. Lesson 2. Descriptive statistics for one variable
Unit 2. Probability	Lesson 3. Introduction to probability Lesson 4. Discrete probability distributions Lesson 5. Continuous probability distributions
Unit 3. Statistical inference	Lesson 7. Confidence limits Lesson 8. Hypothesis testing





Temporary organization of learning:

Block of content	Number of sessions	Hours
Unit 1. Descriptive Statistics	8,00	16,00
Unit 2. Probability	9,00	18,00
Unit 3. Statistical inference	13,00	26,00







References

BASIC BIBLIOGRAPHY:

Diez, D., Barr, C. y Çentikaya-Rundel, M (2013). Openintro Statistics (2^a Ed). Recuperado de https://www.openintro.org/stat/textbook.php

Martín, G. (2007). Introducción a la estadística. Ed: Universidad Católica de Valencia San Vicente Mártir.

COMPLEMENTARY BIBLIOGRAPHY:

Ballester, R., Huertas, F., Yuste, F. J., Llorens, F., & Sanabria, D. (2015). The relationship between regular sports participation and vigilance in male and female adolescents. PloS one, 10(4).

Borreani, S., Calatayud, J., Martin, J., Colado, J. C., Tella, V., & Behm, D. (2014). Exercise intensity progression for exercises performed on unstable and stable platforms based on ankle muscle activation. Gait & posture, 39(1), 404-409.

González, M. T. y Pérez de Vargas, A. (2009). Estadística Aplicada. Una visión instrumental. Ed: Díaz de Santos

Molina-García, J., Castillo, I., Pablos, C., & Queralt, A. (2007). La práctica de deporte y la adiposidad corporal en una muestra de universitarios Descargar. Apunts. Educación física y deportes, 3(89), 23-30.

Romero-Franco, N., Martínez-Amat, A., & Martínez-López, E. J. (2016). Efecto del entrenamiento propioceptivo en atletas velocistas / Effect of the proprioceptive training in sprinters. Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte, 13(51), 437-451. Recuperado de http://cdeporte.rediris.es/revista/revista51/artefecto393.htm