

# APPLIED STATISTICS

## Degree in Human Nutrition and Dietetics

Academic year 2026-27

**Code:** 803974

**Module:** 1

**Subject Area:** Statistics

**Type of subject:** Core

**Department:** Statistics and Operations Research

**Year:** First

**Academic term:** First semester

**Credits:** 6 ECTS

### TEACHING STAF

**Coordinator:** José María Ferrer Caja  
email: jmferrer@ucm.es

**Other teachers:** From the Biostatistics section

### SHORT DESCRIPTOR

Basic concepts of Descriptive Statistics and Inferential Statistics applied to Health Sciences from a theoretical point of view and by means of the use of statistical software.

### COMPETENCIES

They are those corresponding to the Module and Subject Area.

#### General Competences

CG.1.1, CG.1.2, CG.1.3, CG.1.4, CG.2.1, CG.2.2, CG.2.3, CG.4.7, CG.5.2, CG.8.1

#### Specific Competences

CE.M1.3, CE.M1.5, CE.M1.7, CE.M4.22

### OBJECTIVES

The student must be able to apply theoretical concepts of descriptive statistics and statistical inference to medical data using a statistical package.

### SYLLABUS

1. Introduction. Scientific method and statistical method. Population and sample.
2. Descriptive statistics with one variable. Classification of variables. Tables and graphs. Measures of centralization and dispersion.
3. Descriptive statistics with two variables. Crosstabs. Graphics. Correlation and linear regression.
4. Concept of probability. Applications.
5. Usual random variables. Binomial and Normal.
6. Statistical inference: point estimate, confidence intervals and hypothesis tests.

### EVALUATION

- Partial exam: 25% of the final grade
- Final exam 75% of the final grade
- Active participation: Allows for adding up to one additional point on the final grade

## BIBLIOGRAPHY

- De la Horra Navarro, J. (2019). *Estadística aplicada* (3ª ed., reimpresión). Diaz de Santos.
- Martín Andrés, A., & Luna del Castillo, J. (2004). *Bioestadística para las ciencias de la Salud* (1a ed. (5a)). Norma-Capitel.
- Milton, J. S., Turrero Nogués, A., & Zuluaga Arias, M. P. (2001). *Estadística para biología y ciencias de la salud* (3ª ed., ampliada en 2007). McGraw-Hill/Interamericana.
- Quesada Paloma, V., Isidoro Martín, A., & López Martín, L. A. (2011). *Curso y ejercicios de Estadística: aplicación a las Ciencias Biológicas, Médicas y Sociales*. Alhambra.