



# Master's Degree Faculty of Statistical Studies

# BIOSTATISTICS

## Master's Degree Biostatistics

Field of Knowledge: Mathematics and Statistics Responsible Center: Faculty of Statistical Studies. Universidad Complutense de Madrid (UCM)

http://estudiosestadisticos.ucm.es/master-bioestadistica

Orientation: scientificacademic Credits: 60 ECTS Duration: 1 year (2 semesters) Modality: on-site

#### **OBJECTIVES**

The Master in Biostatistics is devoted to the specialized training in statistics applied to life and health sciences. It aims to train biostatisticians:

- with strong methodological foundations in statistics and probability,
- competent in using statistical packages and developing new software,
- · with versatile training in health and life sciences,
- ready to lead statistical studies in life and health sciences.

#### RECIPIENTS

Prospective students should hold an undergraduate degree with a strong statistics component. Also suitable for this Master are professionals or researchers, with a science degree or a degree in one of the health sciences, with a firm interest in and needs for statistics.

#### WHY STUDY THIS MASTER DEGREE?

 The Master in Biostatistics provides its graduates with a solid methodological background, so that they can develop and implement statistical tools in research studies in Biology, Medicine, Veterinary, Pharmacy and, in general, all fields related to Health Sciences and Biosciences.

- This Master provides its graduates with the professional specialization and training in statistical research required and demanded for jobs in the public sector (public health agencies, research centers, hospitals, ...) and in the private sector (pharmaceutical industry, research institutes, consulting firms, ...).
- Graduates of this Master are particularly well trained to pursue work towards a PhD in Statistics.

#### STRUCTURE

The Master consists of 60 credits organized in modules and subjects:

- Module I. Statistics and Computer Tools: 12
  mandatory ECTS
- Module II. Research Studies Design and Dissemination of Results: 12 mandatory ECTS
- Module III. Advanced Statistical Modelling: 18 mandatory ECTS
- Module IV. Specialization seminars: 6 mandatory ECTS
- Module V. Master's Thesis 12 mandatory ECTS

Students have to complete a total of 60 credits in two semesters: eight compulsory subjects and the Master's Thesis.

#### STUDY PLAN

SUBJECT TYPE	ECTS
Mandatory	48
Master's Thesis	12
Total	60

COMPULSORY SUBJECTS	ECTS	SEMESTER
Statistics and Computer Tools Module		
Probability and Simulation	6	10
Software for Database Management	6	10
Research Studies Design and Dissemination of Results Module		
Evidence	6	10
Methodology and Research Design	6	10
Advanced Statistical Modeling Module		
Applied Mixed Models	6	10
Survival Analysis	6	2°
Bayesian Satitistics	6	2°
Specialization Seminars Module		
Specialization Seminars	6	2°
MASTER'S THESIS	ECTS	SEMESTER

12

2°

Master's Thesis





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#### Másteres UCM



### Faculty of Statistical Studies

Campus de Moncloa estudiosestadisticos.ucm.es For more information: estudiosestadisticos.ucm.es/master-bioestadistica

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