

# Teaching guide

## IDENTIFICATION DETAILS

Degree:	Medicine		
Field of Knowledge:	Health Science		
Faculty/School:	Bio-health Science		
Course:	BIOSTATISTICS AND BIOINFORMATICS		
Type:	Basic Training	ECTS credits:	6
Year:	1	Code:	2727
Teaching period:	First semester		
Area:	Statistics		
Module:	Social medicine, communication skills and introduction to research		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

## SUBJECT DESCRIPTION

The Biostatistics and Bioinformatics course introduces students to procedures for collecting and managing information as data that requires numerical processing, for use in everyday medical practice (clinical and research). It is designed to guarantee knowledge of the fundamentals of basic statistical techniques so as to be able to interpret and evaluate the information thus presented in scientific documents. Students are also expected to be able to independently perform basic analysis of data with the help of computerised statistics programs, and to manage other applications that are useful in professional practice (specialised web search engines, professional audiovisual presentations, bibliographic managers, etc.).

## SKILLS

### Basic / general / cross skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

To be familiar with, critically evaluate and know how to use sources of clinical and biomedical information to obtain, organise, interpret and communicate scientific and health-related information.

To be able to use information and communication technologies in clinical, therapeutic, preventive and research activities.

To have a critical, creative viewpoint in professional activity with constructive scepticism focussed on research.

To understand the importance and limitations of scientific thought in the study, prevention and management of illness.

To be able to formulate hypotheses and gather information and critically assess it in order to solve problems using scientific methodology.

To acquire basic training for conducting research.

To recognise one's limitations and the need to maintain and update professional skills, with particular emphasis on independent acquisition of new knowledge and techniques and a motivation to achieve quality.

### **Specific skills**

To understand and critically value technologies and sources of clinical and biomedical information to obtain, organise, interpret and communicate clinical, scientific and healthcare information.

To be able to use clinical and biomedical information technologies and sources to obtain, organise, interpret and report clinical, scientific and medical information.

To be familiar with the basic concepts of biostatistics and their application to medical sciences.

To be able to design and conduct simple statistical studies using software and to interpret the findings. To understand and interpret statistical data set out in medical literature.

To independently use a personal computer.

To be able to use the systems for searching and recovering biomedical information.

To be familiar with clinical documentation procedures.

To be able to manage clinical documentation procedures.

### **DISTRIBUTION OF WORK TIME**

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
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70 hours	80 hours
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