UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Statistica Medica I

1819-1-H4601D069-H4601D091M

Aims

MEDICAL STATISTICS I

Students should be able to:

- explain the basic concepts of statistics: variables and data, statistical units and population

- describe and use the main indices of location and variability

- apply the principles related to the process of data collection and to the use of data-bases

- build appropriate tabular and graphical representations of data

- explain the process of measurement in biology and medicine

- discuss the different types of error as related to any measurement process and the use of the index of precision and accuracy

- evaluate the relationship between two quantitative variables: the Pearson correlation coefficient and the simple linear regression model.

Contents

The course aims to provide students with the
essential theoretical knowledge derived from basic science and tools necessary for future study of the degree course in Dentistry.

Detailed program

MEDICAL STATISTICS I

-Statistical units, sample, population, variables and data

-
Types
of variables

-
Indices
of location and dispersion

-Methods for data collection, coding and checking

-Design of research data-bases

-Construction of tables and graphs

-Concept of random and systematic errors as related to any measurement process

-The indices of precision and accuracy

-The relation between two quantitative variables

-
Correlation
and simple linear regression

Prerequisites

Teaching form

Lectures and tutorials

It is required 70%
course attendance

Textbook and teaching resource

Bland Martin, Statistica Medica, APOGEO, 2009

Bossi A., Cortinovis I., Statistica
medica. Esercitazioni, Città Studi Edizione, 1996

Semester

First semester

Assessment method

No ongoing tests

The evaluation will consist of a written test that
will be used to ascertain the level of knowledge and ability to understand the topics covered during the course and to be able to solve problems.

Therefore the student will have to answer:

5 Open Response Questions (with numerical exercises)

6 Single-answer quiz with 4 answers, of which only one
is correct

Oral examination on the evaluation of the teachers
(discussion of the written discussion) The oral
test will serve to clarify critical issues emerged from the written test and to verify the communication skills of the student and will focus on the topics covered by the written test

Office hours