UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Medical Statistic I

2021-1-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

Due to the COVID emergency the course will be in a mixed modality: partial presence and sincrone videorecording.

Textbook and teaching resource

Bland Martin, Statistica Medica, APOGEO, 2009

Pagano Marcello e Gauvreau Kimberlee, Biostatistica, Idelson-Gnocchi, 2003

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

Agreed with the student