



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Laboratorio Sas e R per la Biostatistica

2425-1-F8203B050

Learning objectives

The course aims to provide the theoretical basis and knowledge of SAS and R useful for the management and analysis of data collected through an experimental or observational design.

Knowledge and understanding

This teaching will provide knowledge and understanding in relation to:

- the management of data with SAS and R
- the use of different models and biostatistical techniques with SAS and R

Ability to apply knowledge and understanding

At the end of the course the students will be able:

- to manage database with SAS and R for a correct visualization of information
- to analyze with the SAS and R language the data coming from an experimental or observational study

Contents

Management of database with SAS and R

Statistical methods for the analysis of the main experimental and observational designs in SAS and R

Detailed program

Management of data with SAS and R: i) Introduction to both languages, ii) methods for cleaning data, iii) methods for reporting and visualization of data

Statistical methods for the analysis of the main experimental and observational designs in both languages: i) analysis of a cross-sectional study, ii) analysis of a cohort study, iii) analysis of a case-control study, iv) analysis of an experimental study

Prerequisites

No formal prerequisites. It is recommended, however, the knowledge of the content of the following courses: Statistical models

Teaching methods

Lectures and computer lab classes

Only if the Covid-19 emergency period will continue the lessons and the computer lab classes will be provided also in video-conferences streaming.

Assessment methods

Final test mode

Lab work of analysis of real data. The oral test which consists in the exposition of the work done.

In this way the teacher will be able to evaluate the students' critical processing capacity of the methods applied and the results obtained.

There are no intermediate exams.

The exam is the same for attending and non-attending students.

The rules described above may undergo variations based on eventual emergency period. If changes are necessary, they will be promptly made available on this page.

Textbooks and Reading Materials

Slides from <http://elearning.unimib.it/>. Other material will be provided by the teacher

Semester

I semester, II period (from November to January).

Teaching language

The language of the course is the Italian. Scientific text and articles are in English language.

Sustainable Development Goals

QUALITY EDUCATION
