UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Statistics for Research

2324-3-I0202D130-I0202D059M

Aims

Consolidation of basic knowledge of the main statistical-methodological tools of descriptive statistics and introduction to inferential statistics for study planning and data analysis

The module aims to make the student able to:

- Critically read the scientific literature that presents descriptive and inferential statistical analyzes with confidence intervals
- Have a solid basic knowledge to be involved in the design and implementation of studies

Contents

Basic definition of probability calculus, confidence interval

Detailed program

Basic definition of probability calculus: random experiment, sample space, simple events, compound events
Probability with classical approach, Probability with Frequentist approach
Incompatible events
Two or more events (simple and/or compound) are incompatible if it is not possible to observe them simultaneously.
Independent, dependent, compatible, incompatible events
Probability of union and intersection
Conditional probability

Estimation of probability from censorship data (outline of Italian school open data)
Confidence interval: genesis, calculation, interpretation, simulation

Prerequisites

Basic knowledge of descriptive statistics.

Teaching form

Specified in the syllabus of the course.

Textbook and teaching resource

"Fondamenti di statistica" Sullivan edito da Pearson

Semester

Specified in the syllabus of the course.

Assessment method

Specified in the syllabus of the course.

Office hours

Specified in the syllabus of the course.

Sustainable Development Goals