



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Medical Statistics

2425-1-I0202D005-I0202D015M

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#### Aims

Basic knowledge of the most important statistical-methodological tools of basic study design and descriptive statistics through practical implementation.

#### Contents

Basics of probability calculation  
Probability estimation with a Frequentist approach

#### Detailed program

UNIT A : Calculation of probabilities (Chapter 5)

Definition of Experiment  
Sample space, simple and compound events  
Probability with classical approach  
Probability with a Frequentist approach

Incompatible, dependent and independent events  
Probability of union and intersection  
Conditional probability

UNIT B: Probability estimation with a Frequentist approach

Calculation of the point estimate of a probability  
Notes on the analysis of open data of Italian schools  
Comment on the analysis of INVALSI data

## **Prerequisites**

Listed in the syllabus of the whole course.

## **Teaching form**

Teaching with frontal hours carried out in presence mode

## **Textbook and teaching resource**

- Book: Fondamenti di statistica Micheal Sullivan III, traduzione a cura di Emma Zavarrone, Pearson 2020, disponibile anche come e-book [https://www.pearson.it/opera/pearson/0-7264-fondamenti\\_di\\_statistica](https://www.pearson.it/opera/pearson/0-7264-fondamenti_di_statistica)
- Slides
- Video Clip

## **Semester**

Listed in the syllabus of the whole course.

## **Assessment method**

Listed in the syllabus of the whole course.

## **Office hours**

Listed in the syllabus of the whole course.

## **Sustainable Development Goals**

QUALITY EDUCATION | GENDER EQUALITY

