

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# **Survival Analysis Methods for Clinical Research**

2425-1-129R001-BIO.21

#### **Title**

Survival Analysis Methods for Clinical Research

#### Teacher(s)

Laura Antolini

#### Language

**English** 

#### **Short description**

#### -Main Topics

- Review of basics in probability calculus: conditional probability, joint probability, total probability rule, product rule
- Definition of survival time variabile and related time functions: incidence probability, survival probability, hazard rate
- Features of survival data: censoring, truncation, competing risks, end-point definitions
- Nonparametric estimation of time functions including competing risks

- Nonparametric tests for the comparison of time functions including competing risks
- Power and sample size calculation
- Fully parametric regression model
- Semi-parametric regression model

Assessment method: Written exam in Lab in Monza

#### **CFU / Hours**

1/8

# **Teaching period**

- standard classes: 3 7 10 14 April from 9 to 11, Room 2 Building Kytos Monza (Vedano al Lambro)
- elearning classes: 27 Mar-04 April study and Quiz

# **Sustainable Development Goals**