UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Quantitative Approach to Biomedical Research

2425-1002-01

Aims

To introduce the fundamental principles and approaches of statistics in biomedical research.

Contents

Welcome and introduction – 2h Maria Grazia Valsecchi
Taxonomy of the studies – 2h Maria Grazia Valsecchi
Descriptive statistics – 6h Marika Vezzoli
Introduction to R – 4h Davide Bernasconi
Probability, sensitivity, specificity and ROC curve – 6h Laura Antolini
Statistical Distribution Functions – 4h Alessandra Carobbio
Inference: hypothesis testing & confidence interval – 4h Maria Grazia Valsecchi + 2h Marika Vezzoli
Variable transformation – 2h Stefania Galimberti

Detailed program

Prerequisites

Teaching form

Textbook and teaching resource

Semester

April 5th 17.00-19.00 Maria Grazia Valsecchi - STREAMING
April 6th 9.00-11.00 Maria Grazia Valsecchi - PRE-RECORDED VIDEO
April 6th 11.00-13.00 Marika Vezzoli - STREAMING
April 8th 17.00-19.00 Davide Bernasconi - PRE-RECORDED VIDEO
April 10th 17.00-19.00 Marika Vezzoli - STREAMING
April 12th 17.00-19.00 Marika Vezzoli - STREAMING
April 13th 9.00-11.00 Davide Bernasconi - STREAMING
April 13th 11.00-13.00 Laura Antolini - PRE-RECORDED VIDEO (part 1)
April 15th 17.00-19.00 Laura Antolini - PRE-RECORDED VIDEO (part 2)
April 17th 17.00-19.00 Laura Antolini - STREAMING
April 19th 17.00-19.00 Alessandra Carobbio - PRE-RECORDED VIDEO
April 20th 9.00-11.00 Marika Vezzoli - PRE-RECORDED VIDEO
April 20th 11.00-13.00 Alessandra Carobbio - PRE-RECORDED VIDEO (11.00-12.00) + STREAMING (12.00-13.00)
April 22nd 17.00-19.00 Maria Grazia Valsecchi - STREAMING
April 24th 17.00-19.00 Maria Grazia Valsecchi - PRE-RECORDED VIDEO
May 3rd 17.00-19.00 Stefania Galimberti - PRE-RECORDED VIDEO

COURSE EVALUATION: June 7th 17.00-19.00

Assessment method

Individual assignment - Multiple choice questions

Office hours

Sustainable Development Goals