

## Statistics

Lecturer: Francesco Alessio Toraldo

H: 25

Credits: 3

Semester: I

Formazione trasversale (compulsory)

### *Description*

- 1: Logical bases of statistical (re)thinking: null hypothesis statistical testing (NHST)
- 2: Limits of the NHST approach and replication crisis in science; Bayesian approach and Bayes Factor
- 3: NHST/Bayesian t-tests and One-way ANOVA
- 4: Multiple comparison correction
- 5: Factorial ANOVA, ANCOVA
- 6: Multiple regression and collinearity
- 7: Repeated measures designs
- 8: Mixed Linear Models (or "Multi-Level" models)
- 9: Outlier detection, over- and under-fitting
- 10: Generalized (Mixed) Linear models

### *Evaluation*

The evaluation will be based on class exercises.

## Calendar

- January 16<sup>th</sup> –9.15-11.45      Rimandata al 29 Gennaio, 9.15 – 11.45
- January 17<sup>th</sup> –9.15-11.45
- January 18<sup>th</sup> –9.15-11.45
- January 24<sup>th</sup> –9.15-11.45
- January 25<sup>th</sup> –9.15-11.45
- January 31<sup>st</sup> –9.15-11.45
- February 1<sup>st</sup> –9.15-11.45      rimandata al 14 febbraio 9.15 -11.45
- February 5<sup>th</sup> –9.15-11.45
- February 6<sup>th</sup> –14.30-17.00
- February 7<sup>th</sup> –9.15-11.45

Classroom L-13 – Palazzo San Tommaso – Università di Pavia