

Introductory Statistics

Collegio Carlo Alberto

Lorien Sabatino

Academic Year 2019 - 2020

Contact Information

Email: lorien.sabatino@carloalberto.org

Website: <https://sites.google.com/carloalberto.org/lorien-sabatino>

Course Description

The course provides a formal introduction to some basic concepts of probability and statistics which are useful in economics and social sciences.

Exam

There will be a written exam at the end of the course.

Program

Part 1

- Introduction to set theory
- Introduction to probability
- Random variables

- Expectation and moment
- Some families of univariate discrete distributions
- Some families of univariate continuous distributions
- Multivariate random variables
- Conditional Probability and Independence

Part 2

- Sampling
- Sample moments
- Weak law of large numbers
- Central limit theorem
- Point Estimation
- Consistency of estimators
- Hypothesis testing and confidence interval

Textbooks

Introduction to the Theory of Statistics - Mood, Graybill, and Boes

Introductory Statistics - Wonnacott and Wonnacott