

# COURSE DETAIL

## STATISTICS

**Country**

Italy

**Host Institution**

University of Commerce Luigi Bocconi

**Program(s)**

Bocconi University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Statistics Mathematics

**UCEAP Course Number**

108

**UCEAP Course Suffix****UCEAP Official Title**

STATISTICS

**UCEAP Transcript Title**

STATISTICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course aims at providing the basic theoretical and applied tools for a rigorous statistical analysis. Specifically, the course focuses on techniques to summarize and visualize data of different types and their possible relations, as well as on basic sampling and inferential procedures, and on the assessment of the risk associated to extrapolation and inference. In particular, students learn how to extract information from data and how to assess the reliability of such information. The course covers the following topics: collection, management, and summary of data using frequency distributions, graphical representations, and summaries; study of the relationship between two variables; statistical inference and sampling variability; theory of point estimation and confidence intervals; hypothesis testing; and simple and multiple regression models. All the descriptive and inferential tools introduced during the course are applied to data using the statistical software R - and in particular the integrated development environment (IDE) RStudio. Prerequisites: understanding of the concepts of probability theory and random variables.

### Language(s) of Instruction

English

### Host Institution Course Number

30001

### Host Institution Course Title

STATISTICS

### Host Institution Campus

Bocconi University

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Decision Sciences

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