

## COURSE DETAIL

### ADVANCED MATHEMATICS AND 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**

130

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

ADVANCED MATHEMATICS AND STATISTICS

**UCEAP Transcript Title**

ADV MATH & STAT

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course introduces students to more advanced topics in Probability Theory and Statistical Inference. The first part is devoted to investigating mathematical aspects of probability, with a special emphasis on multivariate distributions and limiting theorems. In the second part, students are guided through the methodological core of point estimation (both from a frequentist and Bayesian perspective) and hypothesis testing. These theoretical aspects are complemented by an in-depth presentation of elementary simulation and computational techniques that are routinely used within most popular statistical procedures. Prerequisites: Solid knowledge of calculus and of basic programming tools in R.

### Language(s) of Instruction

English

### Host Institution Course Number

30408

### Host Institution Course Title

ADVANCED MATHEMATICS AND STATISTICS

### Host Institution Campus

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Decision Sciences

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