

# COURSE DETAIL

## BIG DATA FOR BUSINESS ANALYTICS

**Country**

Italy

**Host Institution**

University of Commerce Luigi Bocconi

**Program(s)**

Bocconi University

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Statistics Business Administration

**UCEAP Course Number**

151

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

BIG DATA FOR BUSINESS ANALYTICS

**UCEAP Transcript Title**

BIG DATA&BUS ANALYTC

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

The scope of this course allows students a thorough exploration of business analytics and how computational modelling can be combined with big data to achieve given industry goals. In the first part of the course, students are exposed to the fundamental theoretical and methodological basis, analyzing relevant quantitative and mathematical methods. In the second part, students review industry case studies. The course features guest presentations from industry data scientists and experts, showing students how innovative methods based on big data and information technology have solved modern industrial problems. The course discusses topics including the principles of machine learning, formulation of quantitative models via linear programs, the simplex method and duality, sensitivity analysis, network type problems, big data and lasso: the Dantzig selector, and industry 4.0 and descriptive analytics: business case studies. The course suggests students have completed a basic course on mathematics and a basic course on statistics as a prerequisite.

## Language(s) of Instruction

English

## Host Institution Course Number

30514

## Host Institution Course Title

BIG DATA FOR BUSINESS ANALYTICS

## Host Institution Campus

University of Commerce Luigi Bocconi

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Decision Sciences

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