

# COURSE DETAIL

## ADVANCED ANALYSIS OF DATA

**Country**

Italy

**Host Institution**

University of Bologna

**Program(s)**

University of Bologna

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

147

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

ADVANCED ANALYSIS OF DATA

**UCEAP Transcript Title**

ADV DATA ANALYSIS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

By the end of the course, students develop advanced expertise in formulating and implementing statistical approaches to practical problems in a wide variety of subject areas. Students learn to integrate material covered in various lecture courses with skills developed through practical work in order to solve real-world problems. Students learn to: formulate questions of interest and identify relevant informal and formal statistical methodology for a wide variety of practical contexts; implement the various stages of advanced statistical analysis appropriately in R; interpret the output of R procedures; critically collate results and conclusions; present the main results and conclusions in the form of concise summaries; present results of analyses in the form of written reports; critically assess published applications of statistical analysis; and work independently on practical data analysis problems. The course uses a number of case studies covering different areas such as missing values, modelling, regression and related methods, data visualization, and analysis of ordinal and categorical data.

### Language(s) of Instruction

English

### Host Institution Course Number

79296

### Host Institution Course Title

ADVANCED ANALYSIS OF DATA

### Host Institution Course Details

<https://www.unibo.it/en/study/course-units-transferable-skills-moocs/course-uni...>

### Host Institution Campus

BOLOGNA

### Host Institution Faculty

### Host Institution Degree

L in STATISTICAL SCIENCES

**Host Institution Department**

Statistical Sciences "Paolo Fortunati"

**Course Last Reviewed**

2025-2026

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