

# COURSE DETAIL

## PROGRAMMING FOR LANGUAGE STUDIES

**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**

151

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

PROGRAMMING FOR LANGUAGE STUDIES

**UCEAP Transcript Title**

PROGRM LANG STU

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course is part of the Laurea Magistrale degree program and is intended for advanced level students. Enrolment is by permission of the instructor. The course consists of theoretical lessons and practical sessions. In each lesson, after a theoretical introduction, a practical session takes place in which the student is asked to experience the introduced topic first-hand. The course is organized in two modules. The first module covers basic programming concepts, the second module covers advanced topics. The topics of the lectures include:

- Introduction to programming
- Introduction to the Python language
- Importing and Exporting data and text in Python
- Manipulating data and text in Python
- Describing and visualizing data in Python
- Libraries for Machine Learning

At the end of the course, the student has competences on theoretical and practical foundations for the acquisition, manipulation, and analysis of text and data using computational tools. Furthermore, the student will be familiar with the methodological foundations for the development of scripts for natural language processing. They know and use the fundamental algorithms and data structures and are able to build and interpret graphs that show descriptive statistics of the data collected in order to facilitate its analysis.

### Language(s) of Instruction

English

### Host Institution Course Number

B5312

### Host Institution Course Title

PROGRAMMING FOR LANGUAGE STUDIES (LM)

### Host Institution Campus

BOLOGNA

**Host Institution Faculty**

**Host Institution Degree**

LM in LANGUAGE, SOCIETY AND COMMUNICATION

**Host Institution Department**

MODERN LANGUAGES, LITERATURE, AND CULTURES

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