

# R Coding

Marco Zanotti

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**R Coding** is part of the Coding for Data Science course.

The course aims at providing technical skills about coding/scripting aspects for data analysis and to manage persistent data storage of sources and results involved in analysis. On the one side, the Python programming language and the R framework are illustrated. The goal is to deal with essential notions about data structures and control structures of both Python and R. On the other side, the goal is to present the core notions of relational databases, such as keys, integrity, and primary/foreign key constraints, as well as the SQL language for data definition, manipulation, and query. Recent and innovative NoSQL solutions are also discussed, with special focus on a document-oriented system called MongoDB.

## Course Structure

The **R Coding** part of the course aims at teaching **R Programming**.

The state-of-the-art and modern R packages are presented from a very practical point of view, throughout R tutorials on each main topic.

- 10 hours: practical lectures on the main contents

## Contents

- Tidyverse Basics
- Tidyverse Wrangling
- Tidyverse Visualization
- Tidyverse Functional Programming
- Tidymodels
- Flexdashboard UI
- Flexdashboard Reactivity - Shiny
- Flexdashboard in Production

## Duration & Calendar

The course is divided into 5 lectures (2 hours each).

1. Wednesday 2022-02-09, 16.30 - 18.30
2. Friday 2022-02-11, 16.30 - 18.30
3. Wednesday 2022-02-16, 16.30 - 18.30
4. Wednesday 2022-02-23, 16.30 - 18.30
5. Wednesday 2022-03-02, 16.30 - 18.30

Lectures take place at University of Milan, Via Conservatorio 7, and online.

## Requirements

Requirements:

- Lecture 0 - Introduction to R
- Lecture 0 - RMarkdown

For more information about the course contact [zanottimarco17@gmail.com](mailto:zanottimarco17@gmail.com) or look at the Course Syllabus