

# Engineering programming

Introduction

Thibault Thétier - [thibault.thetier@vub.be](mailto:thibault.thetier@vub.be)

Tom Godden - [tgodden@vub.be](mailto:tgodden@vub.be)

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## COURSE ORGANISATION

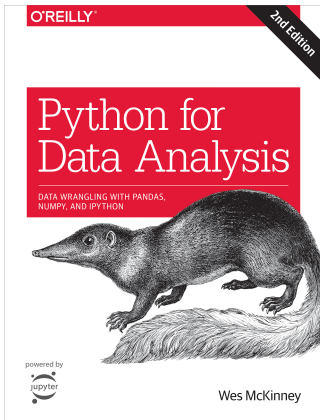
- ▶ What are the rules for this course?
  - ▶ Attendance is mandatory. Missing too many sessions will result in a refusal to participate in the examination
  - ▶ The exercises of a session are to be finished and handed in before the next session
  - ▶ The final grade will be a combination of:
    - ▶ The grade of the project
    - ▶ The grade of the final exam
    - ▶ The attendance and handed in exercises

## EXERCISE SESSIONS

- ▶ How an exercise session will be organised
  - ▶ Answering questions about previous session's theory/exercises
  - ▶ Short theory explanation: how and why
  - ▶ Exercises - Pair programming
    - ▶ One person does the typing, while the other offers comments and suggestions
    - ▶ Switch roles several times per session
  - ▶ Live coding - demonstrations

## THE BOOK

- ▶ Wes McKinney - Python for Data Analysis, 2nd edition - O'Reilly 2017
- ▶ Pdf version can be found with a quick Google search



## WHAT IS THE COURSE ABOUT?

Manipulating, processing, cleaning and crunching data in Python

- ▶ Introduction to Python
- ▶ NumPy & Scipy: scientific computing
- ▶ Matplotlib: graphs & data visualization
- ▶ Pandas: high-performance data manipulation

## TIPS AND GUIDELINES

- ▶ Important to make the exercises: practice makes perfect
- ▶ You can contact us if you have a problem:
  - ▶ [thibault.thetier@vub.be](mailto:thibault.thetier@vub.be)
  - ▶ [tgodden@vub.be](mailto:tgodden@vub.be)
- ▶ For a purely python-related question:
  - ▶ Look at the official [python documentation](https://docs.python.org): <https://docs.python.org>
  - ▶ Ask your favorite [search engine](#): Duckduckgo, Ecosia, Google etc.
  - ▶ Community-powered [Q&A websites](#): StackOverflow, StackExchange, Reddit, etc.