

# Python programming for data science

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# Course Overview

- Deep dive on Python3
  - 3.11+
  - error handling
  - programming paradigms
  - [concurrency]
  - [testing]
- Data Manipulation
  - cleaning (regexp, type checks, ...)
  - preprocessing
- Basic data analysis
- Advanced data analysis
  - pandas, scikit-learn, statsmodels
- Optionals (depends on you)
  - Domain specifics (mne, PIL, ...)
  - DeepLearning (pytorch)
  - SQL (sql-alchemy, dataclasses)

# Course Overview

- Manage data
- Clean data
- Organise data
- Analyse data
- Model data
- Query data
- REPL + scripts + notebooks
- 10 lessons
  - ~ 20% lectures
  - ~ 80% live sessions
- Evaluation
  - Oral (no chatGPT BS allowed)

# Prerequisites

- Python3 syntax + REPL
- builtin types
- Functions (anonymous, higher order)
- OOP basics
- Scripting
- High-school maths

# Contacts

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