

# APPLIED DATA SCIENCE IN FINANCE (PYTHON)



Niveau  
d'étude  
BAC +5



ECTS  
3 crédits



Composante  
Ecole  
d'économie  
de la  
Sorbonne  
(EES)



Volume  
horaire  
18h



Période de  
l'année  
Automne

## En bref

- > **Langue(s) d'enseignement:** Anglais
- > **Méthodes d'enseignement:** En présence
- > **Forme d'enseignement :** Cours magistral
- > **Ouvert aux étudiants en échange:** Non

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### Description

**Summary:** Through three applications, the course will provide an introduction to Data Science in Finance. Each project (6 hours) will be divided into three sessions:

1. A presentation of the problematic and a discussion about the tools and the methodology that could be used by students.
2. A session during which students work in groups on the project and ask questions (debugging).
3. A presentation of the project to the class by the students.

- The first project will consist of creating a WebApp, using Microsoft Azure, Python and MongoDB, to gather and display financial data on a website.

- The second project will consist of extracting data from the Wall Street Journal website before implementing natural language processing to automatically convert textual content into quantitative indicators.

- The third project will consist of creating a real-time trading strategy by analysing the content published on Twitter about listed companies.

The language used for the course is Python.

**Professor:** Thomas Renault (Assistant Professor of Economics - University Paris 1 Panthéon-Sorbonne)

**Student assessment:** Project (submission + presentation)

## Syllabus

1. (6 hours) Project #1: Building a Financial WebApp
2. (6 hours) Project #2: Web scrapping and Natural Language Processing
3. (6 hours) Project #3: Implementing a trading strategy based on Twitter data

## Infos pratiques

### Campus

› Maison des Sciences Économiques