

Programming in Python

Course title - Intitulé du cours	Programming in Python
Level / Semester - Niveau /semestre	M2 / S1
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	DE GEYTER
Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	15
TA Hours - Volume horaire TD	0
TP Hours - Volume horaire TP	0
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Anglais

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

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Course's Objectives - Objectifs du cours :

This course introduces the students to the basics of programming in python in a very hands-on manner. The class is very interactive and requires heavy involvement and participation of the students. The topics handled in this course are:

- Basics of python
- Functional programming
- Object-oriented programming
- Source version control using git
- Data analytics project setup
- Pycharm IDE and python notebooks
- Small introduction to analytics using pandas and scikit-learn

Prerequisites - Pré requis :

Basic understanding of other programming languages is a plus however not an absolute requirement.

Practical information about the sessions - Modalités pratiques de gestion du cours :

Students are required to bring their own laptops with Python, git and Pycharm pre-installed.

Also some slides will be handed-out in advanced which would need to be reviewed by the students.

Grading system - Modalités d'évaluation :

The exam consists of a project and corresponding report. In addition to this the students are asked to review fellow student's project and paper and asked to give them grades. Although these grades are not used directly, the this peer evaluation itself counts for 4 out of the 20 points of the total grading. The additional 16 is split into 8 points for the paper and 8 points for the project.

Bibliography/references - Bibliographie/références :

useful books and links:

Introduction to Python, O'Reilly Media

<https://www.codecademy.com/learn/learn-python>

<https://www.codecademy.com/learn/learn-git>

<http://pandas.pydata.org/>

Distance learning – Enseignement à distance :

This course will be given through zoom and will be recorded.