

Syllabus of Python

- ✚ Introduction and Set Up
(Setting Up Your Integrated Analysis Environment & Tools Overview)
 - IPython Shell
 - Custom environment settings
 - Jupyter Notebooks
 - Script editor
 - Packages: NumPy, SciPy, scikit-learn, Pandas, Matplotlib, Seaborn, etc .
- ✚ Using Python to Control and Document Your Data Science Processes
(Python Essentials)
 - Data types and objects
 - Loading packages, namespaces
 - Reading and writing data
 - Simple plotting
 - Control flow
 - Debugging
 - Code profiling
- ✚ Accessing and Preparing Data
(Acquiring Data with Python)
 - Loading from CSV files
 - Accessing SQL databases
- ✚ Cleansing Data with Python
 - Stripping out extraneous information
 - Normalizing data
 - Formatting data
 - Numerical Analysis, Data Exploration, and Data Visualization with NumPy Arrays, Matplotlib, and Seaborn
- (NumPy Essentials)
 - The NumPy array
 - N-dimensional array operations and manipulations

✚ Memory mapped files
Data Visualization
2D plotting with Matplotlib
Advanced data visualization with Seaborn

✚ Exploring Data with Pandas
Searching for Gold in a Pile of Pyrite
Data manipulation with Pandas
Statistical analysis with Pandas
Time series analysis with Pandas

✚ Machine Learning
Predicting the Future Can Be Good for Business
Input: 2D, samples, and features
Estimator, predictor, transformer interfaces
Pre-processing data
Regression
Classification
Model selection

✚ GUI Tool Working
Introduction to Tkinter
Working with Components
Interactive component Development
Data loading & Visualisation
Data integrity with tkinter

✚ Database Working
Python to Mysql connectivity
Data loading and plotting's from MYSQL
Data acquisition and visualisation with SQL
Big data Manipulation