Data Science with Python

Course Info

Hold by	AppTrainers
Favor	EFE Jordan
Trainer	Mohammed A. El-Agha
Hours	30
Level	Beginner to Intermediate
Location	Online

Course Description

The course provides the trainees the sufficient knowledge in Data Science; in theoretical and practical sides. In this course, the trainees will learn what the Data Science, how to use Python, basics of Data Preprocessing, basics of Data Visualization and some predictive and descriptive data models.

Course General Topics

Topic	% of Course Time
Introduction to Data Science	4%
Python	12%
Data Collection	1%
Data Visualization	3%
Data Preprocessing	40%
Data Modeling	30%
Real, Complete practical example	10%

Course Detailed Topics

1. Introduction to Data Science
2. Python
   a) Basics
   b) Data Structures
   c) Indexing
   d) Pandas
   e) Some Tricks
3. Data Collection
4. Data Visualization
5. Data Preprocessing
   a) Introduction to Data Preprocessing
   b) Data Cleaning
      i. Missing Data
      ii. Data Inconsistency
   c) Data Transformation
      i. Scaling
      ii. Discretization
      iii. Datatype Conversion
   d) Data Reduction
      i. Feature Selection
      ii. Sampling
6. Data Modeling
   a) Classification
   b) Regression
   c) Clustering
   d) Time Series Analysis
7. Final Project

Training Matrix

Lecture/s #	Topic/s
1,2	Intro to DS, Python, Data Collection
3	Data Visualization, Missing Data
4	Data Inconsistency, Scaling
5	Discretization, Datatype Conversion
6	Feature Selection, Sampling
7,8,9	Classification, Regression, Clustering, TimeSeries
10	Final Project