



The Data Science Lab

//The Program is subject to changes//

Weekly Outline	Module	Scope
Week 1	Python Basics	<ol style="list-style-type: none">1. Python syntax, data types, iteration and conditional constructs, structures, libraries, functions, packages, classes, objects2. File handling, lists, store, access and manipulate data3. Data Crawling
Week 2	Data integration with Python	<ol style="list-style-type: none">1. RDBMS integration - connect, populate, create, manipulate, query2. Extract-Transform-Load processes with Python
Week 3	Data analysis in python	<ol style="list-style-type: none">1. Numpy Library2. Scipy Library3. Pandas Library
Week 4	Data Visualization	<ol style="list-style-type: none">1. Reporting Principles2. Dashboards & Data Analytics3. Matplotlib
Week 5 & 6	Machine Learning & Artificial Intelligence	<ol style="list-style-type: none">1. Knowledge discovery & data mining basics and techniques2. Scikit-learn Library: Preprocessing, classification, regression, clustering, and dimensionality reduction, model selection3. Popular ML algorithms (supervised, unsupervised)4. NN, DL, NLP, Image Classification
	Real Life Complete Final Project	