

Data Analysis Course Plan

Total Four months and two weeks:

Month 1:Python,

Week 1: Introduction, Installation, Variables, Data analysis

Week 2: Decision making, functions, exception handling

Week 3: File handling, Modules

Week 4: Object oriented Programming

Month 2:

5 Days: SQL

5 Days: STATISTICS

5 Days: NumPy

Last Week and 3 Days: Pandas : What is series and Data Frame, Ways to create data frame, Reading Data frame(csv,excel,sql), Basics Operations, Iterate over pandas data frames , Slicing and indexing, Conditional Selecting.

Month 3:

Week 1: Pandas: Filling missing values(Linear interpolation), Drop rows having NaN values, Replace(using replace,map,function) , Date as index,date range,to_date_time

3 Days: Pandas: Group by, Concat(),Merge(), Pivot and pivot Tables, Melt, Cross tab

4 Days: MATPLOTT

1 Week and 5 Days: (1 Weeks): What is ml , Types of ml, Difference b/w

regression ,classification, Linear regression

(5 Days): Logistic regression , Decision tree regression

Random forest

Month 4:

Week 1: Knn, Svm, Naive bayes, Cross validation, Hyper parameter tuning, Bias - variance Tradeoff.

Week 2: Ensemble learning, Adaboost, Gradientboost, Unsupervised learning, Kmeans ,Hierarchical clustering, Apriori, Reinforcement learning.

Week 3: Excel.

Week 4: (5 days) Tableau

Month 5:

Week 1:5 Days (1 day from last week and 4 days from this week):

Power Bi

Week 2: 5 Days

Alteryx

Week 2: 3 Days

Web scrapping

Week 3: Project 1

Week 4: Project 1

Month 6:

Week 1: Project 2

Week 2: Project 2

Week 3: Project 2

Week 4: Project 3-- (Dashboard creation; Excel, Tableau, PowerBi,)