



Curriculum Outline

Python and foundations of Data Science Course

Please note that this is a rough outline to which will be covered during the course. All details about what you will be learning will be shared before each session. We have kept this course complete flexible and aligned to students requirement, we may add/ delete few sections depending upon the particular batch's interest/temperment/ interest to learn.

Section	Subsection	Category	Duration (mins)
Introduction to Machine Learning	Machine Learning Foundations	ML	30
	Environment Setup	Python	30
	Environment Demo	Python	30
	Python Basics	Python	240
Understanding Data Wrangling	Loading data	Python	30
	EDA and Visualizations	Python & Basic Statistics	240
	Missing value treatment	Python & Basic Statistics	60
	Multicollinearity check	Python & Basic Statistics	30
Linear Regression	What is linear regression?	Python & Basic Statistics	30
	Linear regression demo	Python & Basic Machine Learning	60
	R squared	Python & Basic Machine Learning	30
	Treating categorical and continuous data	Python & Basic Machine Learning	60
	Multiple linear regression demo	Python & Basic Machine Learning	120
	Feature selection	Python & Basic Machine Learning	60
	Predicting a categorical response	Python & Basic Machine Learning	30
Logistic Regression	Logistic regression simple demo	Python & Basic Machine Learning	120
	Interpreting logistic regression	Python & Basic Machine Learning	60
	Model evaluation	Python & Basic Machine Learning	120

Cross validation	Introduction	Python & Basic Machine Learning	30
	Train/test split	Python & Basic Machine Learning	30
	K-fold cross-validation	Python & Basic Machine Learning	30
Clustering	What is unsupervised learning?	Python & Basic Machine Learning	30
	Basic clustering techniques	Python & Basic Machine Learning	60
	K-Means clustering	Python & Basic Machine Learning	150
	Evaluating clustering	Python & Basic Machine Learning	30