
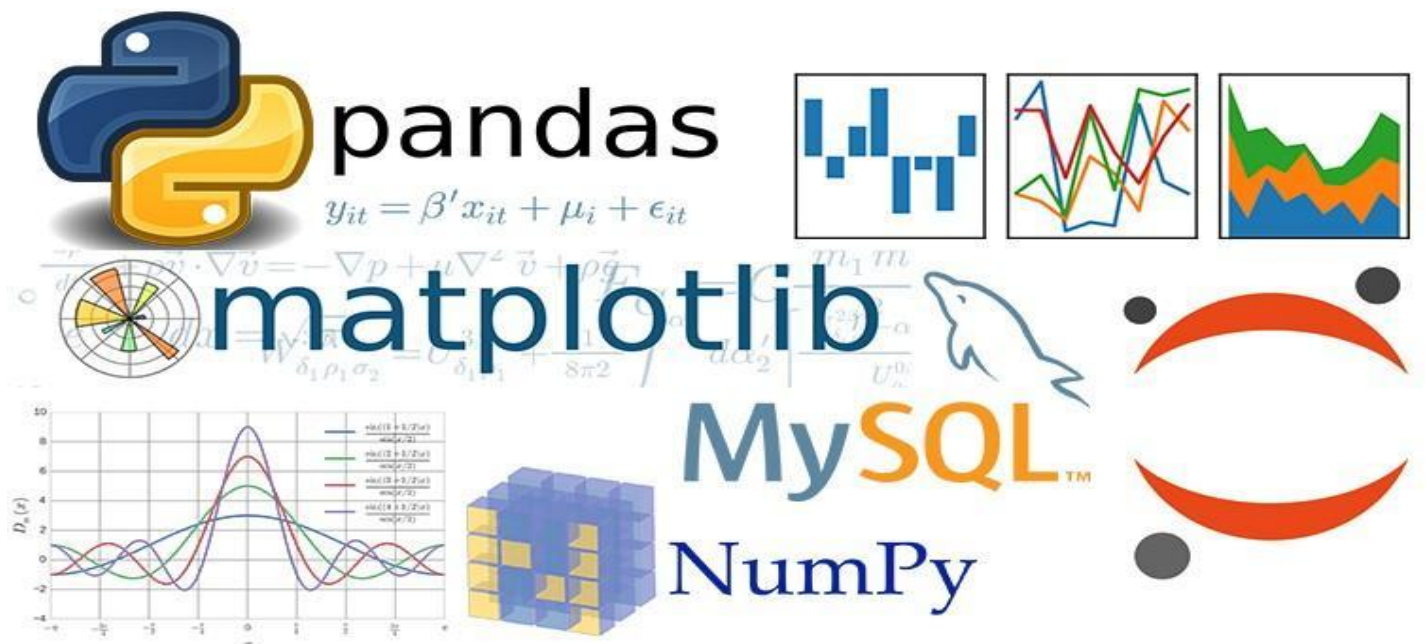




LEARN, THINK, INNOVATE



Learn Data Science with Python Course



pandas
 $y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$

matplotlib

MySQL

NumPy

Overview

Let eMexo Technologies **Best Data Science with Python Training in Electronic City Bangalore** take you from the fundamentals of Data Science with Python to Advance Data Science with Python and make you an expert in developing real-time Data Science with Python applications. Here are the major topics we cover under this Data Science with Python course Syllabus **Introduction to Python, Sequences and File Operations, Deep Dive – Functions, OOPs, Modules, Errors and Exceptions, Introduction to NumPy, Pandas, and Matplotlib, Data Manipulation, Introduction to Machine Learning with Python, Supervised Learning, Dimensionality Reduction, Supervised Learning – II, Unsupervised Learning, Association Rules Mining and Recommendation Systems, Reinforcement Learning, Time Series Analysis, Model Selection and Boosting**. Each topic will be covered in a practical way with examples for our **Data Science with Python Course in Electronic City Bangalore**.

All the topics will be covered with Practical and hands-on training. Our trainers have industry experience with live project experience in cutting-edge technologies they teach. We hire only the Best Data Science with Python industry specialists as trainers for our **Data Science with Python Training in Electronic City Bangalore**.

If you are looking for **Data Science with Python Training in Electronic City Bangalore**, eMexo Technologies is the **Best Data Science with Python Training Institute in Electronic City Bangalore**. Come over to our training institute for a free demo class. Let our trainer give you a demo on Data Science with Python and only then will you decide to enroll in the Data Science with Python Training in Electronic City Bangalore.

Training Features

Real-life Case Studies

Do a real-life case study to understand the usage in real-world scenarios.

Assignments

Each class will be followed by a practical assignment which that can be completed before the next class.

Preparation for interview

Our trainers are professionals working in multinational corporations. They are experts in their field and know exactly what the interviewer will look for in the candidate. Experienced trainers share interview questions and conduct mock interviews to help prepare for the actual interview.

Key Features

eMexo Technologies offers the **Best Data Science with Python Training Course in Electronic City Bangalore** with the TOP industry expert trainers.

Here are the key features.

- ★ Free Demo Class Available
- ★ Practical Approach
- ★ Expert & Certified Trainers
- ★ 100% Job Oriented Training
- ★ Real World use cases and Scenarios
- ★ Completed 500+ Batches
- ★ Certification Guidance

Unit 1: Introduction to Python

- Python Overview
- The Companies using Python
- Different Applications where it is used
- Discuss Python Scripts on UNIX/Windows
- Values, Types, Variables
- Operands and Expressions
- Conditional Statements
- Loops
- Command Line Arguments
- Writing to the screen
- Hands-On

Unit 2: Sequences and File Operations

- Python files I/O Functions

- Numbers
- Strings and related operations
- Tuples and related operations
- Lists and related operations
- Dictionaries and related operations
- Sets and related operations
- Hands-On

Unit 3: Deep Dive – Functions, OOPs, Modules, Errors and Exceptions

- Functions
- Function Parameters
- Global Variables
- Variable Scope and Returning Values
- Lambda Functions
- Object-Oriented Concepts
- Standard Libraries
- Modules Used in Python
- The Import Statements
- Module Search Path
- Package Installation Ways

- Errors and Exception Handling
- Handling Multiple Exceptions
- Hands-On

Unit 4: Introduction to NumPy, Pandas, and Matplotlib

- NumPy – arrays
- Operations on arrays
- Indexing slicing and iterating
- Reading and writing arrays on files
- Pandas – data structures & index operations
- Reading and Writing data from Excel/CSV formats into Pandas
- matplotlib library
- Grids, axes, plots
- Markers, colors, fonts and styling
- Types of plots – bar graphs, pie charts, histograms
- Contour plots
- Hands-On

Unit 5: Data Manipulation

- Basic Functionalities of a data object
- Merging of Data objects

- Concatenation of data objects
- Types of Joins on data objects
- Exploring a Dataset
- Analysing a dataset
- Hands-On

Unit 6: Introduction to Machine Learning with Python

- Revision (NumPy, Pandas, sci-kit learn, matplotlib)
- What is Machine Learning?
- Machine Learning Use-Cases
- Machine Learning Process Flow
- Machine Learning Categories
- Linear regression
- Gradient descent
- Hands-On

Unit 7: Supervised Learning - I

- What are Classification and its use cases?
- What is a Decision Tree?
- Algorithm for Decision Tree Induction
- Creating a Perfect Decision Tree

- Confusion Matrix
- What is Random Forest?
- Hands-On

Unit 8: Supervised Learning - II

- What is Naïve Bayes?
- How Naïve Bayes works?
- Implementing Naïve Bayes Classifier
- What is Support Vector Machine?
- Illustrate how the Support Vector Machine works?
- Hyperparameter Optimization
- Grid Search vs Random Search
- Implementation of Support Vector Machine for Classification
- Hands-On

Unit 9: Dimensionality Reduction

- Introduction to Dimensionality
- Why Dimensionality Reduction
- PCA
- Factor Analysis
- Scaling dimensional model

- LDA
- Hands-On

Unit 10: Unsupervised Learning

- What is Clustering & its Use Cases?
- What is K-means Clustering?
- How does the K-means algorithm work?
- How to do optimal clustering
- What is C-means Clustering?
- What is Hierarchical Clustering?
- How Hierarchical Clustering works?
- Hands-On

Unit 11: Association Rules Mining and Recommendation Systems

- What are Association Rules?
- Association Rule Parameters
- Calculating Association Rule Parameters
- Recommendation Engines
- How do Recommendation Engines work?
- Collaborative Filtering

- Content-Based Filtering
- Hands-On

Unit 12: Reinforcement Learning

- What is Reinforcement Learning
- Why Reinforcement Learning
- Elements of Reinforcement Learning
- Exploration vs Exploitation dilemma
- Epsilon Greedy Algorithm
- Markov Decision Process (MDP)
- Q values and V values
- Q – Learning
- α values
- Hands-On

Unit 13: Time Series Analysis

- What is Time Series Analysis?
- Components of TSA
- Importance of TSA
- White Noise
- AR model

- MA model
- ARMA model
- ARIMA model
- Stationarity
- ACF & PACF
- Hands-On

Unit 14 : Model Selection and Boosting

- What is Model Selection?
- The need for Model Selection
- Cross-Validation
- What is Boosting?
- How Boosting Algorithms work?
- Types of Boosting Algorithms
- Adaptive Boosting
- Hands-On

FAQs

1. How is the training organized? How much percentage is theoretical and how much is practical hands-on?

We at eMexo believe nothing beats hands-on practice when it comes to learning a concept. Our teaching methodology is 100% practical and hands-on oriented. You learn a concept, you practice it then and there with trainers. We also give you assignments for each topic which you can practice at home and any doubts regarding the topic can be cleared with the trainer the next day.

2. What is the course duration? How and when do you plan to complete the course?

We generally cover our courses in 30 hours, however, we know that we can't put a hard- stop to learning with a number. Our trainer will make sure that you have learned everything that is part of the curriculum. This could mean 28 hours or 35 hours, doesn't matter.

3. What is the material provided in the training?

We have industry standard course material which is used by our trainers to train you. At the end of the training, apart from the notes which you have taken during the course, we will also provide you with the training material which was used. This training material includes the training content, interview questions, etc.

4. Do you help in preparing for the interview?

Our trainers are working professionals who work in MNCs. They are the experts in their domain and they know exactly what an interviewer looks into a candidate. Our expert trainers apart from sharing the interview questions will also conduct mock interviews to help you prepare for the real interview.

5. Who are your trainers?

Our trainers are industry experts who work in their respective technologies day in and day out. They work in MNCs and are technology experts within their organizations.

6. What is the total batch size per course?

We maintain a strict batch size of a maximum of 5 students. We also provide exclusive one-to-one training as well. Talk to our training partner to get more details.

7. Do you provide certification for the course?

Yes, at the end of training we provide a certification of completion.

8. Will I be joining a new batch or being merged with another batch?

You will be added to a new batch.

9. Is fast-track training available?

Yes, we also provide fast-track training for those who want to complete the course faster. The curriculum and the total hours required to complete the course will remain the same. However, the trainer will be spending more hours with you to complete the course.

10. Do you assist in job placement?

Our trainers are expert professionals in their organizations and they often act as the interviewer to hire new candidates. Our trainers will help you prepare your resume with industry standards. After all, they know exactly what to look for in a resume.

11. Timings for training - Regular training/weekend training?

We provide both regular and weekend training. Talk to our training partner to learn more about the timings.

12. Will you be working on a live project during training?

Yes, apart from doing the hands-on practice our trainer will also be taking a real-world project and working with you on the implementation.

13. What happens if I miss a class?

If you miss a class the content of that class will be taught to you again. With us, you might miss a class but not the content.

14. Can I attend a demo before the actual class?

Yes, absolutely! Talk to our training counselor on the phone at **+91-9513216462** or email us at **info@emexotechnologies.com** to arrange a free demo. You can also fill in the contact us form below and we will call you to discuss your training requirements.