



PYTHON TRAINING

Data Analytics Python Course

Unlock data insights with Python. Master data manipulation, visualization, and predictive modeling for powerful analytics.

DURATION

40 Hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of data with our Intermediate Data Analytics Python Course at Computer Pride. This comprehensive program is meticulously designed for individuals looking to master Python's robust capabilities for data manipulation, analysis, and visualization. You will dive deep into essential Python libraries such as NumPy for numerical operations, Pandas for efficient data structuring and cleaning, and Matplotlib and Seaborn for creating compelling visual narratives from complex datasets. The course also introduces fundamental statistical concepts and their application using Python, laying a solid foundation for more advanced analytical techniques.

By completing this course, you will acquire practical, in-demand skills that are crucial in today's data-driven world. You will learn to extract meaningful insights, identify trends, and make data-backed decisions that drive business growth. This program is ideal for aspiring data analysts, business intelligence professionals, or anyone seeking to enhance their analytical toolkit with Python, preparing you for immediate application in diverse industry settings.

Duration	40 Hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Python Refresher and Environment Setup

- Review of Python fundamentals (data types, control flow, functions)
- Setting up your data analytics environment (Anaconda, Jupyter Notebooks, VS Code)
- Introduction to essential libraries: NumPy for numerical computing
- Working with NumPy arrays and array operations

02 Module 2: Data Manipulation and Cleaning with Pandas

- Introduction to Pandas DataFrames and Series
- Importing and exporting data (CSV, Excel, JSON)
- Data cleaning techniques: handling missing values, duplicates, and inconsistent data
- Data transformation: filtering, sorting, grouping, merging, and reshaping data
- Feature engineering basics

03 Module 3: Data Visualization and Exploration

- Fundamentals of data visualization principles
- Creating static visualizations with Matplotlib (line plots, bar charts, histograms, scatter plots)
- Advanced statistical plotting with Seaborn (distributions, relationships, categorical data)
- Customizing plots and making them presentable for reports
- Interactive visualization concepts (brief overview)

04 Module 4: Statistical Analysis and Introduction to Machine Learning

- Descriptive statistics in Python (mean, median, mode, variance, standard deviation)
- Inferential statistics basics (hypothesis testing, correlations)
- Introduction to Scipy for statistical functions
- Basic concepts of machine learning: supervised vs. unsupervised learning
- Implementing simple linear regression using scikit-learn

Module 5: Working with Diverse Data Sources and Capstone Project

- 05**
- Connecting Python to SQL databases (SQLite, MySQL, PostgreSQL)
 - Extracting data from web APIs
 - Real-world data analytics case studies
 - End-to-end data analysis project: from data acquisition to insights and reporting
 - Best practices for code organization and documentation

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Data Analyst (Python Specialist)**
- > **Business Intelligence Analyst (focused on Python for reporting and dashboards)**
- > **Analytics Engineer (utilizing Python for data pipeline and transformation)**

FREQUENTLY ASKED QUESTIONS

Q: What are the prerequisites for enrolling in the Data Analytics Python Course?

This is an intermediate-level course. Participants are expected to have a foundational understanding of Python programming concepts, including variables, data types, control structures (if/else, loops), and basic functions. While not strictly required, prior exposure to basic statistics or data concepts would be beneficial, though key statistical concepts will be reviewed within the course.

Q: What kind of hands-on projects or practical experience will I gain during this course?

The course is highly practical, featuring numerous hands-on exercises, labs, and a comprehensive capstone project. You will work with real-world datasets to perform data cleaning, transformation, exploratory data analysis, and build visualizations. The capstone project will allow you to apply all learned skills from data acquisition to generating actionable insights, mirroring challenges faced by data analysts in industry.

Q: How will this course help me transition into a data-focused career or enhance my current role?

This course equips you with the core Python programming and analytical skills highly sought after in data-centric roles. You will learn to proficiently manipulate, analyze, and visualize data, enabling you to derive insights and make data-driven decisions. The practical projects and focus on industry-standard libraries like Pandas, NumPy, Matplotlib, and Seaborn directly prepare you for roles such as Junior Data Analyst, Business Intelligence Analyst, or to integrate advanced analytics into existing positions.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading

technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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