



PYTHON TRAINING

Python Data Science Course

Master Python for data science, covering analysis, visualization, and machine learning techniques to extract valuable insights from data.

DURATION

2 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 Computer Pride's Intermediate Python Data Science Course. This comprehensive program is meticulously designed for individuals looking to leverage Python's robust ecosystem for data analysis, visualization, and machine learning. You'll dive deep into fundamental libraries such as NumPy for numerical operations, Pandas for efficient data manipulation and analysis, and Matplotlib/Seaborn for creating compelling data visualizations that uncover hidden patterns and insights.

Beyond foundational data handling, this course introduces you to the exciting world of machine learning using Scikit-learn, enabling you to build predictive models and solve real-world problems. By mastering these core technologies, you'll gain the practical skills needed to transform raw data into actionable intelligence, driving informed decision-making and innovation. This certification positions you as a valuable asset in any data-driven organization, equipping you for advanced roles in analytics and AI.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Python Fundamentals & NumPy for Data

- Setting up your Python Data Science Environment (Anaconda, Jupyter Notebooks)
- Review of Python Data Structures and Control Flow
- Introduction to NumPy: Arrays, Vectorization, and Broadcasting
- NumPy Array Operations: Indexing, Slicing, Reshaping
- Statistical Operations with NumPy

02 Module 2: Data Manipulation with Pandas

- Introduction to Pandas Data Structures: Series and DataFrames
- Loading and Saving Data (CSV, Excel, SQL)
- Data Cleaning and Preprocessing: Handling Missing Data, Duplicates
- Data Selection and Filtering: loc, iloc
- Grouping, Aggregation, and Merging DataFrames

03 Module 3: Data Visualization for Insights

- Introduction to Matplotlib: Basic Plotting and Customization
- Advanced Visualization with Seaborn: Statistical Plots (Histograms, Box Plots, Scatter Plots)
- Creating Multi-panel Plots and Subplots
- Interpreting Visualizations to Extract Business Insights
- Interactive Plotting Concepts (overview)

04 Module 4: Introduction to Machine Learning with Scikit-learn

- Understanding Machine Learning Concepts: Supervised vs. Unsupervised Learning
- Overview of Scikit-learn: Data Splitting, Model Training, Evaluation
- Regression Models: Linear Regression
- Classification Models: Logistic Regression
- Introduction to Model Evaluation Metrics (Accuracy, Precision, Recall)

05 Module 5: Practical Applications & Project

- Feature Engineering Basic Concepts
- Data Pipelines and Workflow in Data Science
- Case Study: Applying Data Science Techniques to a Real-World Dataset
- Course Project: End-to-End Data Analysis and Model Building
- Best Practices for Data Science Project Deployment

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Data Scientist**
- > **Data Analyst with Python Expertise**
- > **Machine Learning Enthusiast / Entry-Level ML Engineer**

FREQUENTLY ASKED QUESTIONS

Q: What are the specific prerequisites for enrolling in this Intermediate Python Data Science Course?

To get the most out of this course, participants should have a foundational understanding of Python programming concepts, including variables, data types, control flow (loops, conditionals), and functions. While prior data science experience isn't required, basic statistical knowledge would be beneficial. We recommend completing a Python programming fundamentals course or having equivalent practical experience before starting this program.

Q: How will this course prepare me for a Data Analyst role, specifically in using Python?

This course is tailored to equip you with the exact Python skills demanded by Data Analyst roles. You will master data acquisition, cleaning, transformation using Pandas, and develop strong data visualization capabilities with Matplotlib and Seaborn. These practical skills are crucial for identifying trends, creating reports, and communicating data-driven insights effectively, making you highly competitive for Python-centric data analyst positions.

Q: Will I gain experience with real-world datasets and projects during the course?

Absolutely. A significant component of this course involves hands-on application. You will work with various real-world datasets to practice data manipulation, visualization, and basic machine learning model building. The final module culminates in a comprehensive project where you'll apply all learned techniques to solve a practical data problem, providing you with a portfolio-ready piece of work.

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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