

# Python for Beginners: Cleaning Messy Data with Python Training Curriculum



## What will the training cover?

The **3-hour Python for Beginners: Data Cleaning for Analysis Workshop** is designed to introduce students to Python while teaching practical techniques for preparing data for analysis. Students will learn the fundamentals of working with Python and **Pandas**, including understanding DataFrames and working with rows and columns, before applying these concepts to common data-cleaning tasks. Through hands-on exercises using pre-filled Google Colab notebooks, students will learn how to clean and standardize text, manage columns, remove unnecessary rows, handle blank values, identify duplicates, and prepare datasets for analysis.

By the end of the workshop, students will have foundational experience working with Python and Pandas and understand how to use Python to transform messy datasets into clean, organized, analysis-ready data.

## Software Requirements

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Office 365

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Google Account

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## Prerequisites

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No previous Python experience required

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No programming experience required

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Basic experience working with Excel spreadsheets or similar tabular datasets

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## Training Topics

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Understand Python, Pandas, and DataFrames for working with structured data

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Clean and standardize text values using Python

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Select, rename, reorder, and remove columns within a dataset

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Filter and remove unnecessary rows based on specific conditions

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Identify and remove duplicate records and blank values

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Prepare messy datasets for accurate and efficient data analysis

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Execute and modify Python code using pre-filled Google Colab notebooks

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Export cleaned, analysis-ready datasets for future use

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**DATA TELLS A STORY. BE THE STORYTELLER**