

Python Course Curriculum (4 Weeks)

Week 1: Python Basics & Setup

- Introduction to Python and its uses
- Installing Python and Jupyter Notebook
- Writing your first Python program
- Variables, data types, and basic operations
- Using print statements and getting user input

Week 2: Working with Data

- Lists, dictionaries, and loops
- Reading and writing data (CSV and text files)
- Introduction to pandas for data manipulation
- Filtering, sorting, and summarizing data
- Handling missing values and basic cleaning

Week 3: Data Visualization

- Introduction to data visualization
- Using matplotlib to create basic charts
- Customizing graphs (labels, colors, styles)
- Introduction to seaborn for advanced plots
- Combining charts and subplots

Week 4: Automation & Projects

- Writing simple scripts to automate tasks
- Combining Python with Excel or CSV workflows
- Mini-project: analyzing a dataset
- Review and wrap-up
- Next steps for real-world application