

Quick Start to Python for Data Science Primer: A Hands-on Technical Overview - [TTPS4872](#)

Explore basic Python skills to kickstart your data analysis journey - perfect for business users stepping into data-driven roles.

Duration: 2 Days

Skill Level: Introductory

Available Format: Instructor-Led Online; Instructor-Led, Onsite In Person ; Blended; On Public Schedule

Dive into the dynamic world of Python with our **Quick Start to Python for Data Science Primer**, tailored specifically for data analysts, business analysts, and technical managers keen on grasping the essentials of Python. This introductory course offers a friendly first step into the programming language that's become a staple in data science.

What You'll Learn

Overview

Dive into the dynamic world of Python with our **Quick Start to Python for Data Science Primer**, tailored specifically for data analysts, business analysts, and technical managers keen on grasping the essentials of Python. This introductory course offers a friendly first step into the programming language that's become a staple in data science. Through engaging instructor-led presentations and light hands-on activities, you'll explore Python in various environments, including traditional scripts and interactive web notebooks like Jupyter. Discover how to execute simple scripts, manage data with fundamental Python structures, and apply basic programming concepts to real-world data scenarios.

By the end of this course, you'll not only understand the core functionalities of Python but also appreciate how it can be leveraged in data science applications. You'll be equipped to read and write basic files - a crucial skill for data management - and get introduced to powerful data science tools such as NumPy and Pandas for preliminary data analysis. Whether you're preparing for more advanced training or looking to gain a quick, practical understanding of Python for your professional needs, this course promises a clear and concise introduction to the skills necessary to kickstart your journey in data science.

NOTE: This course is a great quick start to getting you conversant with and exposure to basic concepts. If you're heading into project work or more advanced training soon after this course, you might consider the **Fast Track to Python for Data Science (TTPS4873)** as an alternative. That course offers additional topics and labs which provide more hands-on practice with core concepts and skills.

Objectives

This hands-on course provides a solid starting point for business analysts, technical managers, or anyone interested in understanding the basics of Python in the context of data science. Attendees will be able to:

- **Run Python Scripts:** You will be able to execute basic Python scripts using both traditional script-based environments and interactive web notebooks like Jupyter, which is fundamental for beginning any data science project.
- **Manipulate Simple Data Structures:** Gain the ability to handle simple operations with Python's standard data structures (such as lists and dictionaries), enabling you to organize and manage data efficiently.
- **Apply Basic Python Commands for Data Analysis:** Learn to use essential Python commands and functions for basic data analysis tasks, giving you a taste of what Python can offer in processing and analyzing data.
- **Read and Write Basic Files:** Develop the skills to open, read, write, and close text files with Python, which is crucial for importing data for analysis and exporting results.
- **Get Acquainted with Python's Data Science Libraries:** Acquire a foundational awareness of how libraries like NumPy and Pandas are used in Python for tasks like statistical analysis and data manipulation, preparing you for further exploration in the field of data science.

Audience

This introductory-level course is geared for technical professionals new to Python. Roles include data analysts, developers, engineers or anyone tasked with utilizing Python for data analytics tasks. Familiarity with basic scripting skills is recommended, as this course does not teach general scripting basics.

Pre-Requisites

Familiarity with basic scripting skills is recommended, as this course does not teach general scripting basics.

TTPS4800 Introduction to Python Programming Basics

Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We will work with you to tune this course and level of coverage to target the skills you need most. Course agenda, topics and labs are subject to adjust during live delivery in response to student skill level, interests and participation.

1. **Getting Started: Explore the Python Environment**
 - Python in the Shell
 - The python interpreter
 - Getting started with Jupyter notebook)
 - Python in Web Notebooks (iPython, Jupyter, Zeppelin)
 - Exploring Python, Notebooks, and Data Science
2. **Variables and Values**
 - Using variables
 - Builtin functions
 - Strings
 - Numbers
 - Converting among types
3. **Basic Input and output**
 - Writing to the screen
 - Command line parameters

4. **Flow Control**
 - About flow control
 - White space
 - Conditional expressions
 - Relational and Boolean operators
 - While loops
 - Alternate loop exits
5. **Sequences, Arrays, Dictionaries and Sets**
 - About sequences
 - Lists and list methods
 - Tuples
 - Indexing and slicing
 - Iterating through a sequence
 - Sequence functions, keywords, and operators
 - List comprehensions
 - Generator Expressions
 - Nested sequences
 - Working with Dictionaries
 - Working with Sets
6. **Working with files**
 - File overview
 - Opening a text file
 - Reading a text file
 - Writing to a text file
 - Reading and writing raw (binary) data
7. **Functions, modules, & packages**
 - Defining functions
 - Parameters
 - Variable Scope
 - Creating modules
 - Using import
 - Creating packages
8. **Python and Data Science**
 - Python data science overview
 - NumPy Overview (with SciPy)

- Pandas Overview
- Matplotlib Overview

Follow On Courses

TTAI2330	QuickStart to Azure OpenAI Basics for Technical Users
TTML5502	Exploring AI & Machine Learning for the Enterprise Overview (Light Hands-on)
TTML5510	Machine Learning Essentials Boot Camp / Part 1: Preparing Your Data
TTPS4878	Hands-On Data Analysis with Panda
TTPS4879	Hands-On Predictive Analytics with Python

Related Courses

TTDS6000	Data Science & Big Data Overview: Tools, Tech & Modern Roles in the Data-Driven Enterprise
TTPS4820	Mastering Python Programming Boot Camp
TTPS4824	Python Essentials for Networking & Systems Administration

All applicable course software, digital courseware files or course notes, labs, data sets and solutions, live coaching support channels, CodeCoach.AI anytime tutor access, and rich extended learning and post training resources are provided for you in our “easy access, single source, no install required” online **Learning Experience Platform (LXP)**, remote lab and content environment. Access periods vary by course. We™ collaborate with you to ensure your team is set up and ready to go well in advance of the class. Please inquire about set up details and options for your specific course of interest.

For More Information

Please [contact us](#) or call 844-475-4559 toll free for more information about our training services (instructor-led, self-paced or blended), coaching and mentoring services, public course enrollment or questions, partner programs, courseware licensing options and more.