Introduction to Python Programming Basics (TTPS4800)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Introduction to Python Programming Basics is a hands-on Python programming course that teaches you the key skills you ll need to get started with programming in Python to a solid foundational level. The start of the course will lead you through writing and running basic Python scripts, and then guide you through how to use more advanced features such as file operations, regular expressions, working with binary data, and using the extensive functionality of Python modules. Extra emphasis is placed on features unique to Python, such as tuples, array slices, and output formatting. This course provides you with an excellent kick start for users new to Python and scripting, enabling you to quickly use basic Python skills on the job in a variety of ways. You ll be able use Python in basic web development projects, or use it to automate or simplify common tasks with the use of Python scripts. The course also serves as a solid primer course / foundation for continued Python study in support for next level web development with Python, using Python in DevOps, Python for data science / machine learning or Python for systems admin or networking support.

About This Course

Introduction to Python Programming Basics is a hands-on Python programming course that teaches you the key skills you ll need to get started with programming in Python to a solid foundational level. The start of the course will lead you through writing and running basic Python scripts, and then guide you through how to use more advanced features such as file operations, regular expressions, working with binary data, and using the extensive functionality of Python modules. Extra emphasis is placed on features unique to Python, such as tuples, array slices, and output formatting. This course provides you with an excellent kick start for users new to Python and scripting, enabling you to quickly use basic Python skills on the job in a variety of ways. You ll be able use Python in basic web development projects, or use it to automate or simplify common tasks with the use of Python scripts. The course also serves as a solid primer course / foundation for continued Python study in support for next level web development with Python, using Python in DevOps, Python for data science / machine learning or Python for systems admin or networking support.

Who Should Attend

This course is appropriate for advanced users, system administrators and web site administrators who want to use Python to support their server installations, as well as anyone else who wants to automate or simplify common tasks with the use of Python scripts. Students can apply the course skills to use Python in basic web development projects or automate or simplify common tasks with the use of Python scripts.

Prerequisites & Entry Requirements

General Prerequisites:

To ensure a smooth learning experience and maximize the benefits of attending this course, you should have the following
prerequisite skills:
At least some prior hands-on experience with scripting or programming. You don®®t need to be an expert in either, but you
should have had some exposure and should be coming from a technical background.
Working with Unix or Linux, and familiarity with using the command line interface for simple tasks, such as file navigation
and executing commands.
Basic familiarity working with text editors like Notepad, or IDEs, would be helpful as the course includes hands-on lab
sessions requiring code editing.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

This skills-focused course is about 50% hands-on lab to lecture ratio, combining expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises.
Working in a hands-on learning environment led by our expert instructor, you'll learn how to:
Create working Python scripts following best practices
Use python data types appropriately
Read and write files with both text and binary data
Search and replace text with regular expressions
Work with with the standard library and its work-saving modules
Create 'real-world', professional Python applications
Know when to use collections such as lists, dictionaries, and sets
Work with Pythonic features such as comprehensions and iterators
Write robust code using exception handling

Detailed Course Outline

Python Quick View

- What is Python
- Python timeline
- Advantages/disadvantages
- Installing Python
- Getting help

The Python Environment

- Starting Python
- Using the interpreter
- Running a Python script
- Editors and IDEs

Getting Started with Python

- Using variables
- Builtin functions
- String data
- Numberic data
- Converting types
- Console input/output
- Command line parameters

Flow Control

- About flow control
- The if statement
- Relational and Boolean operators
- while loops
- Exiting from loops

Array Types

- About array types
- Lists and list methods
- Tuples
- Indexing and slicing
- Iterating through a sequence
- Sequence functions, keywords, and operators
- List comprehensions and generators

Working with Files

- File overview
- Opening a text file
- Reading a text file
- Writing to a text file

Dictionaries and Sets

- About dictionaries
- Creating dictionaries
- Iterating through a dictionary
- About sets
- Creating sets
- Working with sets

Functions

- Defining functions
- Returning values
- Parameters and arguments
- Variable scope

Sorting

- The sorted() function
- Custom sort keys
- Lambda functions
- Sorting in reverse
- Using min() and max()

Errors and Exception Handling

- Exceptions
- Using try/catch/else/finally
- Handling multiple exceptions
- Ignoring exceptions

Modules and Packages

- Creating Modules
- The import statement
- Module search path
- Using packages
- Function and module aliases

Getting Started with Object Oriented Programming and Classes

- About object-oriented programming
- Defining classes
- Constructors
- Understanding self
- Properties
- Instance Methods and data
- Class methods and data
- Inheritance

, The Python Environment

Starting Python

Using the interpreter

Running a Python script

Editors and IDEs

Variables and Values

Using variables

Builtin functions

String data

Numeric data

Converting types

Basic input and output

Writing to the screen

String formatting

Command line arguments

Reading the keyboard

Flow Control

About flow control

The if statement

Relational and Boolean values

while loops

Exiting from loops

Array types

Sequence types in general

Lists and list methods

Tuples

Indexing and slicing

Iterating through a sequence

Sequence functions, and operators

List comprehensions and generators

Working with files

File I/O overview

Opening a text file

Reading a text file

Writing to a text file

Dictionaries and Sets

About dictionaries

Creating dictionaries

Getting values

Iterating through a dictionary

About sets

Creating sets

Working with sets

Functions

Defining functions

Returning values

Parameters and arguments

Variable scope

Sorting

The sorted() function

Custom sort keys

Lambda functions

Sorting in reverse

Using min() and max()

Exception handling and logging

Exceptions

Using try/catch/else/finally

Handling multiple exceptions

Logging setup

Basic logging

Modules and Packages

Creating Modules

The import statement

Module search path

Using packages

Function and Module aliases

Introduction to Classes

About object-oriented programming

Defining classes

Constructors

Understanding self

Properties

Instance Methods and data

Class methods and data

Inheritance

Additional Course Details

Nexus Humans Introduction to Python Programming Basics (TTPS4800) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Introduction to Python Programming Basics (TTPS4800) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Introduction to Python Programming Basics (TTPS4800)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day Introduction to Python Programming Basics (TTPS4800) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Introduction to Python Programming Basics (TTPS4800) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Introduction to Python Programming Basics (TTPS4800)?

Yes, we provide corporate training, dedicated training, and closed classes for Introduction to Python Programming Basics (TTPS4800). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Python

Q: Why choose Nexus Human for Introduction to Python Programming Basics (TTPS4800)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Introduction to Python Programming Basics (TTPS4800) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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