

Python for Analytics



CADS

FUTURE PROOFING THE WORLD!

**6-day, Instructor-led Live Workshop
(Online and Physical Class Options Available)**



Python Programming Fundamentals for Data, Analytics & AI Professionals

CADS Python for Analytics Fundamentals module will enable students to get started with Python programming by learning and getting hands-on with the basic concepts. This is essential for becoming a productive data professional.

Take the First Step to Data Science and AI

Python is one of the most used programming tools in data processing and analytics. The open-source community provides a rich ecosystem of tools and libraries which enable us to automate workflows and analyze data on a large scale and in smarter ways.

Students will be introduced to Python by learning and getting hands-on with the basic programming concepts including data types, variables, lists, dictionaries, functions, if/else conditions, loops, reading/writing data and error handling.

AEDA



Associate Enterprise Data Analyst

informs.PEP
PROFESSIONAL EDUCATION PARTNER

PDU Approved

Python for Analytics is one of the modules under our Associate Enterprise Data Analyst (AEDA) program. AEDA is a seventeen-day program that provides analysts with the tools required for efficient data analysis.

Learning Outcome



Understand the advantages and possibilities of the Python programming language.



Comprehend the principles, techniques, and practices relevant to Python programming.



Design and solve a simple data-related problem by writing a workable program using the basics.



Simplify and automate workflow with a simple program.



Analyze and derive business insights from huge datasets.

Who Should Attend

Analysts and business professionals who want to master the fundamental of data science.



18 CPD HOURS

REGISTRATION:

Register at
www.thecads.com/trainings
or email engage@thecads.com



Course Outline

Introduction to programming and different programming languages	Participants will learn about what it means to program, why they should program, and how many programming languages are there. The candidates will also be introduced to Python.
Programming basics and introduction to Jupyter	Participants will learn about the basics of programming languages such as python, these include basic concepts, syntax. They will also learn about IDE's and a small introduction of Jupyter notebook. Also Jupyter notebook short keys.
Python programming fundamentals	Participants will learn to write their first program "hello world". They will familiarize themselves with the syntax of Python and how Python can be used as a calculator. Participants will also learn about variables in Python and how to initiate them.
Handling errors and loops	Participants will learn about the various errors in Python and how to deal with them. They will also be introduced to 'loops' and 'if / else' statements. This will teach them how to iterate over various things in Python.
Objects, data types and functions	Participants will learn the basics of why everything is an object in Python, what are the various data types that Python supports and what are the built-in functions in Python.
How to create functions in Python	Participants will learn how to create their own functions in Python and how it makes their code more efficient. They will also be introduced to methods in Python and how they can be used with functions.
List operators	Participants will learn the fundamentals of Python list operators.
Dictionary Operators	Participants will be introduced to Python dictionaries and the different functionalities that they can do using dictionaries.
Python List Comprehensions	Participants will learn the fundamentals of list comprehensions.
Lambda Functions	Participants will learn how to use lambda functions in their code and will try out different exercises.
Importing Modules in Python	Participants will learn the fundamentals of how different modules can be imported into Python and how this makes coding so much simpler.
Accessing or reading writing files in Python	Participants will learn how to read and write different types of files in Python. These include JSON, CSV's, excel files.
I/O in Python	Participants will learn about the structures of JSON and CSV data, and to manipulate files in Python, specifically JSON and comma-separated values (CSV) and will be able to use common data formats in their data analysis.
Errors and debugging of errors	Participants will be able to handle and understand the techniques needed to handle and debug errors. The ability to manage errors will enhance participants' ability to write clean, error-free codes.
Object-Oriented Programming	Participants will learn in more detail about object-oriented programming and the concepts of structures and classes in Python.