

# Techno Hub Python Programming





# About Course



## About Python


Python is a great general-purpose programming language that's becoming increasingly popular for data science. Demand for these skills is rising because companies want to harvest insights from their data.

## Discover the Python Basics

This is a Python course for beginners, and we designed it for people with no prior Python experience. It is even suitable if you have no coding experience at all. You will cover the basics of Python, helping you understand common, everyday functions and applications, including how to use Python as a calculator, understanding variables and types, and building Python lists. The first half of this course prepares you to use Python interactively and teaches you how to store, access, and manipulate data using one of the most popular programming languages in the world.

## Explore Python Functions and Packages

The second half of the course starts with a view of how you can use functions, methods, and packages to use code that other Python developers have written. As an open-source language, Python has plenty of existing packages and libraries that you can use to solve your problems.



# COURSE CONTENT

## Module 1: Introduction

- ✓ Introduction to Python .
- ✓ Importance and scope of Python
- ✓ History and Development of Python
- ✓ Syntax in Python
- ✓ PyCharm Installation
- ✓ Working on Google Colab

## Module 2: Basics of Python Programming

- ✓ Print Statement in Python
- ✓ Comments and Slash in Python
- ✓ Data Structures in Python
- ✓ Data Types in Python
- ✓ How to calculate compiler processing speed in python
- ✓ String Operations in Python
- ✓ Simple Input & Output
- ✓ Simple Output Formatting

## Module 3: Loops and Logic in Python

- ✓ Indentation
- ✓ The If statement and statement
- ✓ if and statement
- ✓ While loop in Python
- ✓ For loop in Python
- ✓ Range statement in Python
- ✓ Break &Continue
- ✓ Assert
- ✓ Examples for looping

## Module 4: Functions and Modules in Python

- ✓ Create your own functions
- ✓ Functions Parameters
- ✓ Variable Arguments
- ✓ Scope of a Function
- ✓ Function Documentations
- ✓ Lambda Functions& map
- ✓ n Exercise with functions
- ✓ Create a Module
- ✓ Standard Modules

## Module 5: Exception Handling in Python

- ✓ Errors
- ✓ Exception handling with try
- ✓ handling Multiple Exceptions
- ✓ Writing your own Exception

## Module 6: File Handling in Python

- ✓ File handling Modes
- ✓ Reading Files
- ✓ Writing& Appending to Files
- ✓ Handling File Exceptions
- ✓ The with statement

## Module 8: Classes and Objects in Python

- ✓ New Style Classes
- ✓ Creating Classes
- ✓ Instance Methods
- ✓ Inheritance
- ✓ Polymorphism
- ✓ Exception Classes & Custom Exceptions

## Module 9: Generators & Iterators in Python

- ✓ Iterators
- ✓ Generators
- ✓ The Functions any and all
- ✓ With Statement
- ✓ Data Compression

## Module 10: Data Structures in Python

- ✓ List Comprehensions
- ✓ Nested List Comprehensions
- ✓ Dictionary Comprehensions
- ✓ Functions
- ✓ Default Parameters
- ✓ Variable Arguments
- ✓ Specialized Sorts

*The written course content is only a highlight we provide much more than mentioned .*

# COURSE CONTENT

## Module 11: Collections in Python

- ✓ namedtuple()
- ✓ deque
- ✓ ChainMap
- ✓ Counter
- ✓ OrderedDict
- ✓ defaultdict
- ✓ UserDict
- ✓ UserList
- ✓ UserString

## Module 12: Collections in Python

- ✓ Introduction
- ✓ Components and Events
- ✓ An Example GUI
- ✓ The root Component
- ✓ Adding a Button
- ✓ Entry Widgets
- ✓ Text Widgets
- ✓ Check buttons

## Module 13: Database and its usage

- ✓ Introduction
- ✓ Installation
- ✓ DB Connection
- ✓ Creating DB Table
- ✓ INSERT, READ, UPDATE, DELETE operations
- ✓ COMMIT & ROLLBACK operation
- ✓ Handling Errors

## Module 14: Server and Network Coding

- ✓ Introduction
- ✓ A Daytime Server
- ✓ Clients and Servers
- ✓ The Client Program
- ✓ The Server Program

## Module 15: Date and Time in Python

- ✓ Sleep
- ✓ Program execution time
- ✓ More methods on date/time

## Module 16: Topics in Advanced Python

- ✓ Filter
- ✓ Map
- ✓ Reduce
- ✓ Decorators
- ✓ Frozen set

## Module 17: Regular Expressions in Python

- ✓ Split
- ✓ Special characters, date and emails
- ✓ Quantifiers
- ✓ Match and find all
- ✓ Character sequence and substitute

## Module 18: Thread Essentials in Python

- ✓ Class and threads
- ✓ Multi-threading
- ✓ Synchronization
- ✓ Treads Life cycle
- ✓ Use cases

## Module 19: Accessing API Essential

- ✓ Introduction
- ✓ Facebook Messenger
- ✓ Openweather

## Module 20: DJANGO Framework in Python

- ✓ Django Overview
- ✓ Django Installation
- ✓ Creating a Project
- ✓ Usage of Project in depth Discussion
- ✓ Creating an Application
- ✓ Understanding Folder Structure
- ✓ Creating a Hello World Page
- ✓ Database and Views
- ✓ Static Files and Forms
- ✓ API and Security

## Module 21: Developing custom personal bot

- ✓ Introduction to Speech Recognition
- ✓ Installation of WIKIPEDIA
- ✓ Installation of PyAudio
- ✓ Using Google API Key in Personal Jarvis BOT
- ✓ Creating Logic and Commands
- ✓ Running your BOT
- ✓ Uploading your BOT on a server

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## COURSE DETAILS

### 3 Months

**Fees - 33,888 RS**

- ✓ Kit will be provided but you can not take it home after completion of course.
- ✓ Live field internship
- ✓ Major project development
- ✓ Write & Publish Research Paper in International Journal
- ✓ Paper presentation in National/International conference.

### 6 Months

**Fees - 46,000 RS (with Kit)**

- ✓ You can take your kit home
- ✓ Live field internship
- ✓ Major project development
- ✓ Write & Publish Research Paper in International Journal
- ✓ Paper presentation in National/International conference.
- ✓ 1 month revision course anytime in 2 years

No extra charges will taken for the mentioned services apart from the course fees. We are here to help students, not to eat their money, we want to promote technology education .

## COURSE DETAILS

### Delivery of the Course :

- **Online Mode**

If the student is unable to reach our location , we will deliver the course in an online mode. The student will get his / her kit by courier and the rest of things will remain the same.

- **Offline Mode**

Techno Hub Laboratories will not deliver the course by displaying slides on a power point presentation. Techno Hub Laboratories has a state of the art Laboratory which is equipped with latest equipments, so the student will do the entire course hands on which will make a student unstoppable in the industry.

## COURSE DETAILS

### Scheme for students with financial issues:

There are some students who are unable to do courses like these due to financial issues, so for them we have a scheme that will help them to pursue these courses and make their career.

- **Course Loan**

We will offer a course loan with 0 interest which the student can repay after the completion of the course , this loan scheme is applicable for both 3 months as well as 6 months courses . No interest will be charged when the student comes to repay the loan . For more information please call or whats app on our helpline +91 9997030409 .

- **Equal Monthly Installments**

Apart from the loan scheme we also have a system of equal monthly installments (EMI) . In this the student with a very minimum down payment can pay an equal amount per month for a duration of 3 months or 6 months . No interest will be charged on the EMIs . This scheme is applicable for both the 3 months and 6 months course . For more information please call or whats app on our helpline +919997030409 .

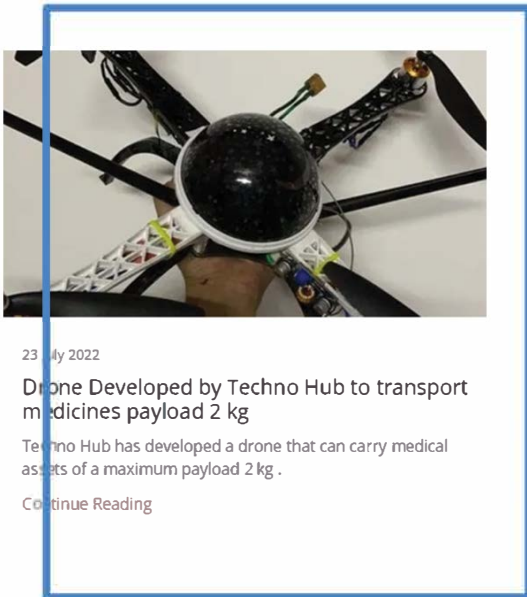
- **Course Group Mutual Funds**

In this scheme, if a students come in a group , like in a group of 3 students or 5 students or 10 students, then based on the size of the group there will be exclusive discount per student. This scheme is applicable for 3 months and 6 months course. For more information please call or whatsapp on our helpline +919997030409 .

Note : We are always there to help students and build a better future .

# Why learn from us?

Techno-hub laboratories is a recognized woman led start-up based in Uttarakhand. Education, Environment and Technology are our focus areas. We have a core team of young professionals who are committed to quality and excellence. We have been engaged in conducting a lot of online professional courses around our core areas of expertise. We have a large number of technology experts from Industry as well as academia associated with us to make these workshops really effective.



23 July 2022  
Drone Developed by Techno Hub to transport medicines payload 2 kg  
Techno Hub has developed a drone that can carry medical assets of a maximum payload 2 kg .  
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13 July 2022  
Techno Hub wins SDG - 9 Award by CM Pushka Singh Dhama Ji  
Centre for Public Policy and Good Governance (CPPGG), Department of Planning, Govt. of Uttarakhand in collaboration with UNDP Organised Uttarakhand's First SDG Goalkeeper awards. The intend of this initiative is to recog...  
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Our founder director Dr. Reema Pant brings about 30 years of experience in the field of teaching, learning and research. The core group and advisers of Techno-hub are distinguished academicians, industry experts, and nationally and internationally renowned people of repute.

Techno Hub Laboratories is recognized by Startup India , Startup Uttarakhand . Techno Hub Laboratories has won the SDG – 9 Goalkeeper by Government of Uttarakhand for Industry and Innovation excellence .



**Interested to Joining Register Now !**

## Features

- ✓ Professional Mentor
- ✓ High Quality Courses
- ✓ Teams and Training Room
- ✓ Modern Learn Methods

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# Techno Hub Training & Internships




**CONTACT  
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