
Brief Report of Value Added Course on CAV-22-01 - Python for Beginners from 21st February- 15th May, 2023

1 message

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Mon, Aug 7, 2023 at 10:22 PM

Brief Report of Value Added Course (CAV-22-01)
On
Python for Beginners
(21st February- 15th May, 2023)
Organized by
Department of Computer Application
In Association with
Integral University Center for Advanced Training
Integral University, Lucknow

The Department of Computer Application in Association with Integral University Center for Advanced Training, Integral University, Lucknow organized an online Value Added Course (CAV-22-01) on '**Python for Beginners**' for the University students from all the branches. The Six-weeks Value-Added Course, with 30-hours of active engagement, was organized from 21st February to 15th May 2023 in offline mode using ILI (Integral Learning Initiative: A Collaborative Blended Learning Platform).

For advertisement of the course, IUCAT created an HTML E-mailer comprising the details of the course along with the registration link and circulate the E-mailer to the students through Communication Cell. Total 184 students from all the branches registered in the course. One batch was created to start the course and we have followed lunch time from Monday to Thursday to deliver the course sessions. The duration of the session was 1 hour per day with weekend assignments. The entire course sessions of the batch were successfully delivered by Mr. Faizan Mahmood (Assistant Professor, Department of Computer Application, Integral University, Lucknow).

Learning skills of the students were excellent. They attended the course with full dedication and submitted weekend assignments as per the given deadline. At the end of the course, we have conducted course completion feedback from the participants on ILI and then students can download their certificate if they completed assignments of all the modules.

Total 82 students successfully completed the course and received an e-Certificate. The distribution of e-Certificate was based on student's attendance, submitted assignments and their performance in the online test, conducted at the end of the course.

Python for Beginners course covers basic and advanced concepts in Python. Students will learn about data types, variables, lists, tuples, dictionaries, decision-making statements, and loops. Learn about user-defined functions, object-oriented programming, threading, and Python scripting. By the end of the course, students will have the skills necessary to get started as a Python developer.

This hands-on Python programming course shows how to rapidly develop and maintain effective Python programs. The course includes thorough coverage of Python syntax, built-in data types and control constructs. The course takes a practical approach to creating and organizing Python programs using functions, data structures, string, list, dictionary and classes as part of Python's object-oriented paradigm. Attendees will use regular expressions to rapidly process data captured from users and from the file system.

Attendees will learn how to use Python to create scripts that manipulate data, automate tasks, perform error handling and store and retrieve data by using relational databases. Students will be able to create Python scripts that assist with system administration.

The course helps students to get exposed to the industry and to acquire adequate technical knowledge and know-how thereof. It is not possible for any institution to provide all types of processes, equipment, etc., that are used in various industries. The Training course therefore provides an opportunity to the students to get exposed to a very large area of technology and its processes. This training course results in better employment opportunities for students and helps them to acquire better analytical as well as practical approaches.

The Value-Added Course was organized by Department of Computer Application in Association with Integral University Center for Advanced Training under the able guidance of Dr. Mohammad Faisal, Head, Department of Computer Application, Integral University, Lucknow and was coordinated by Mr. Farooq Ahmad (Assistant Professor, Department of Computer Application and Coordinator, IUCAT).

Key Highlights of the training:

- It was an offline interactive learning course.
- Total 184 students from all the branches registered in the Value-Added course.
- The students successfully completed the Value Added Course on “Python for Beginners (CAV-22-01)”.
- 82 students successfully completed the course and received an e-Certificate.
- Six-Week online course with 30 hours of active engagement consisting of self-learning materials, collaborative learning through discussion forums & groups, assessment through online Quizzes and Assignments, and feedback from the participants.
- Learning support by Resource person and Facilitators.
- Students received e-Certificate from the following programs:

B.A. (hons)	BCA	M.Sc.	B.Tech (CSE)	Diploma
BBA	BPT	M.Tech.	Research Scholar	MCA
B.Sc.	MBA	Pharmacy	Biotechnology	B.Tech(ME)

We have delivered the following course content on “Python for Beginners”:

Introduction to Python 3

- Origin and Goals of Python
- Overview of Python Features
- Getting and Installing Python
- Install Python on Windows
- Using IDLE On Windows
- Working at the command line or in IDE

The Basics of Python

- Understanding Python variables
- Python basic Operators
- Understanding python blocks
- Python Data Types
- Output statements
- Declaring and using Numeric data types
- Using string data type and string operations
- Defining list and list slicing
- Use of Tuple data type

Program Flow Control in Python

Data Structures

- Storing Data Using Sets, Lists, and Tuples
- Performing operations on sets
- Working with lists
- Creating and using Tuples
- Indexing Data Using Dictionaries

Python String, List and Dictionary Manipulations

- Building blocks of python programs
- Understanding string in build methods
- List manipulation using in build methods
- Dictionary manipulation
- Programming using string, list and dictionary in build functions

Python File Operation

- Reading config files in python
- Writing log files in python
- Understanding read functions, read(), readline() and readlines()
- Understanding write functions, write() and writelines()
- Programming using file operations

- An Introduction to Program Flow Control
- Conditional blocks using if, else and elif
- Simple for loops in python
- For loop using ranges, string, list and dictionaries
- Use of while loops in python
- Loop manipulation using pass, continue, break and else
- Programming using Python conditional and loops block

Python Functions, Working with Arguments

- Organizing python codes using functions
- Powerful Lamda function in python
- Passing Arguments to Functions by Reference and by Value
- Defining Functions with Required Arguments
- Defining Functions with Default Arguments
- Defining Flexible Functions that Take Variable Length Arguments
- Programming using functions

Python Object Oriented Programming – Oops

- Concept of class, object and instances
- Constructor, class attributes and destructors
- Real time use of class in live projects
- Inheritance, overlapping and overloading operators
- Adding and retrieving dynamic attributes of classes

Python Exception Handling

- Avoiding code break using exception handling
- Safe guarding file operation using exception handling
- Handling and helping developer with error code
- Programming using Exception handling

Python GUI Application Development

- GUI Programming, use of GET and POST methods for passing information
- Database concepts (SQL Statements)
- Database handling in Python (using MySQL as backend)
- SQL Database connection using python
- Programming using database connections
- Development of a Demo Project



TIME TABLE

Python for Beginners

(21st February - 15th May, 2023)

Day/Period	I 9:00-9:50	II 9:50-10:40	III 10:40-11:30	IV 11:30-12:20	Lunch 12:30-1:30	V 1:30-2:20	VI 2:20-3:10	VII 3:10-4:00
Monday					Python for Beginners Value Added Course Trainer: Faizan Mahmood			
Tuesday					Python for Beginners Value Added Course Trainer: Faizan Mahmood			
Wednesday					Python for Beginners Value Added Course Trainer: Faizan Mahmood			
Thursday					Python for Beginners Value Added Course Trainer: Faizan Mahmood			
Friday						Python for Beginners Value Added Course Doubt Clarifications		
Saturday								



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