

# Python Course Content

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S.No.	Module	Topics
1	Introduction to Python	Using Python as calculator Initial steps towards programming
2	Variables and data types	Naming and using variables Different numbers
3	String formatting	Indexing of a string Slicing and applications
4	Looping with IF statement	Conditional tests If-else statements If-elif-else chains Multiple elif blocks Omitting the else block Testing multiple conditions
5	User Input and Typecasting	Using input() statement Various typecasting
6	While & For loop	Working with the while loop Working with the for loop Using the range function Using break, continue and else clauses
7	Introduction to lists	What is a list and how to create one Changing, adding and removing elements Organizing the lists Looping through the lists Making numerical lists Working with the parts of the list
8	Tuples & Sets	Working with Tuples Adding elements to tuples Working with Sets
9	Working with dictionaries	Introduction and how to create dictionaries Looping through dictionaries Nesting

10	Working with functions	<ul style="list-style-type: none"> <li>Defining functions</li> <li>Passing arguments</li> <li>Return values</li> <li>Passing lists</li> <li>Passing arbitrary number of arguments</li> </ul>
11	Classes	<ul style="list-style-type: none"> <li>Creating and using the classes</li> <li>Working with classes and instances</li> <li>Inheritance</li> <li>Importing classes</li> </ul>
12	Files and exceptions	<ul style="list-style-type: none"> <li>Reading from a file</li> <li>Writing to a file</li> <li>Storing data</li> <li>Exchanging information from PDF files</li> </ul>
13	Accessing data from different sources	<ul style="list-style-type: none"> <li>Creating new files</li> <li>Accessing existing file</li> <li>Appending existing files with new data</li> <li>Formatting the excel files</li> <li>Reading data from CSV</li> </ul>
14	Python Packages	Python Packages
15	Object oriented programming	<ul style="list-style-type: none"> <li>Introduction to OOP in Python</li> <li>Class definition</li> <li>Class variables v/s instance variables</li> <li>Creating properties</li> <li>Inheritance</li> <li>Multiple inheritance</li> <li>Iterable and iterator</li> <li>Generator and yield</li> </ul>