Introduction to Python Programming (2:0:2)

Sub Code : MCA2C04 **CIE : 50%**
Hrs/Week : 03 **SEE : 50%**
SEE Hours : 3 Hrs **Max. Marks: 100**

Pre-requisite : NA

Course Outcomes:

On successful completion of the course the students will be able to

1. Learn the syntax and semantics of the Python language.
2. Handle strings files and other data types of Python.
3. Understand lists and dictionaries of Python.
4. Implement OOPs concepts in Python.
5. Understand network, database concepts using Python.

MODULE 1 **9 Hours**

Why should you learn to write programs, Variables, expressions and statements

Self-Learning Exercise: Types of statements

MODULE 2 **8 Hours**

Conditional execution, Functions, Iteration

Self-Learning Exercise: Usage of range vs xrange methods

MODULE 3 **8 Hours**

Strings, Files, Lists, Dictionaries

Self-Learning Exercise: String method calls

MODULE 4 **9 Hours**

Classes and objects, Classes and functions, Classes and methods

Self-Learning Exercise: Few methods

MODULE 5 **9 Hours**

Networking Programs using Python, Using databases and SQL

Self-Learning Exercise: Need for SQL

Text Books

1. Python for Everybody: Exploring data using Python 3, 1st Edition, Create Space Independent Publishing Platform, 2016.

2. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", 2nd Edition, Green Tea Press, 2015.

Reference Books

1. Mark Lutz, "Programming Python", 4th edition, O'Reilly publications, 2010
2. Zed A Shaw, "Learn Python the hard way", Hard Way Series, 2013