

Rajarshi Shahu Mahavidyalaya, Latur

(Autonomous)

Department of Information Technology

Course Type: SEC-I

Course Title: Basics of Python Programming

Course Code: 101COM1601

Credits: 02 Max. Marks: 50 Lectures: 30 Hrs.

Learning Objectives:

LO 1. Understand basic principles of Python programming language

LO 2. Acquaint with basics of Python programming

LO 3. Learn Python collections with examples

LO 4. Design basic level applications using Python

Course Outcomes:

After completion of course the student will be able to-

- CO 1. Solve numerical as well as non-numerical problems using python programming
- CO 2. Adequately use functions, conditional and looping statements
- CO 3. Write code in using conditional, looping and functions
- CO 4. Handle errors occurred in program
- CO 5. Develop basic applications using Python

Unit No.	Title of Unit & Contents	Hrs.
I	Introduction to Python	06 Hrs
	1. Python History	
	2. Features of python	
	3. Flavors of python	
	4. Installation of python	
	5. Applications of python	
	Unit Outcomes:	
	UO 1. Explain features and flavors of python	
	UO 2. Acquire the installation process of python	
II	Python Basics	08 Hrs
	1. Identifiers	
	2. Keywords	
	Input-output statements: input(), print()	
	4. Comments in python	
	5. Code blocks and indentation	
	6. Simple python programs	
	Unit Outcomes:	
	UO 1. Acquaint with basics of python programming	

III	Python Collections and Operators	07 Hrs
	 Datatypes: int, float, complex, bool, str Python Collections – List, Tuple, Sets and Dictionary Type Casting in python Operators: Arithmetic Operators, Relational Operators or Comparison Operators, Logical operators, Assignment operators, Special operators 	
	Unit Outcome: UO 1. Make use of data types, collections and operators for solving given problem	
IV`	Statements and Functions	09 Hrs
	 Conditional Statements: if, if-elif, if-elif-else Transfer Statements: break, continue, pass Iterative Statements: for, while Functions in Python: Built in Functions, User Defined Functions Examples on conditional and looping statements Unit Outcomes: UO 1. Write code in using conditional, looping and functions UO 2. Handle errors occurred in program 	
	UO 3. Develop basic applications using python	
V	Practicals (Included in above 04 units)	

Learning Resources:

- 1. Core Python Programming, Second Edition, Wesley J. Chun., Prentice Hall, 2001
- 2. Learning Python, 5th edition, Mark Lutz, O'Reilly
- 3. Programming Python, 4th Edition, O'Reilly
- 4. https://www.python.org/
- 5. https://www.w3schools.com/python/
- 6. https://www.tutorialspoint.com/python/index.htm