

<b>Branch: B.Sc.(IT)</b>	<b>Semester-IV</b>
<b>Subject Code: 4202</b>	<b>Lecture: 02</b> <b>Credit: 02</b>
<b>Course Opted</b>	<b>Core Course - 12</b>
<b>Subject Title</b>	<b>PYTHON PROGRAMMING LAB</b>

**Course objectives:**

- To learn Installation of Python interpreter
- To understand python basic syntax and data types
- To implement variable declarations in Python
- To use control structures
- To learn modules

**Course Outcomes:**

- Able to use the fundamental Python syntax.
- Able to handle strings and functions.
- Able to write programs using control and conditional structure
- Able to create and run Python programs by utilizing the data structures like lists,
- Able to use dictionaries, tuples and sets.

<b>Modules</b>	<b>Sr.No.</b>	<b>Topic and Details</b>	<b>No. of Lectures/ Practical Assigned</b>	<b>Marks Weightage %</b>
UNIT - I	1	<b>Installation of Python</b> <b>Implementation of Data Types:</b> Numeric int, float, complex data types and type conversions Implementation of string data type, list, data type Conversions, Use of Built in Functions.	4	8
UNIT - II	2	<b>Python Program Flow Control</b> Programs to Implement if, else and elif, loops, Loop manipulation using pass, continue, break and else and loops block	5	10
UNIT - III	3	<b>Functions, Data visualization in python</b> Programs using functions, modules and external packages Programs to implement file operations	8	16
UNIT - IV	4	<b>Creating the GUI Form and Adding Widgets:</b> Creation of GUI Form and Adding Widgets: Designing GUI applications with proper Layout Management features	8	16
<b>TOTAL</b>			<b>25</b>	<b>50</b>

**Text Book:**

1. Learning With Python, by Allen Downey, Jeff Elkner and Chris Meyers

**Reference Book:**

1. Dive into Python, Mike
2. Learning Python, 4th Edition by Mark Lutz
3. Programming Python, 4th Edition by Mark Lutz
4. Python Cookbook, Third edition by David Beazley and Brian K. Jones
5. Head First Python: A Brain-Friendly Guide, by Paul Barry
6. Learn Python The Hard Way, by Zed A. Shaw
7. Learning Python the hard way by show zed, Pearson 3rd Edition