# Teaching-Learning & Assessment Scheme:

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| **Course Code** | **Course Title & Abbr** | **Course Category** | **Learning Scheme** | | | | | **Credits** | **Paper Duration (Hrs.)** | **Assessment Scheme** | | | | | | | | | | |
| **Actual Contact Hrs/Week** | | | **SLH** | **NLH** | **Theory** | | | | **Based on LL & TSL Practical** | | | | **Based on SL** | | **Total Marks** |
| **CL** | **TL** | **LL** | **FA TH** | **SA TH** | **Total** | | **FA-PR** | | **SA-PR** | | **SLA** | |
| **Max** | **Max** | **Max** | **Min** | **Max** | **Min** | **Max** | **Min** | **Max** | **Min** |
| 314004 | PYTHON PROGRAMMING | ASC | 2 | - | 4 | - | 6 | 3 | - | - | - | - | - | 50 | 20 | 50# | 20 | - | - | 100 |

Abbreviations: CL- Class Room Learning , TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS – Indian Knowledge System, SLA - Self Learning Assessment

Legends: @ Internal Assessment, # External Assessment, \*# On Line Examination, @$ Internal Online Examination

* **COs, Practical Laboratory Learning Outcome (LLOs) and Mapping:**

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| **Pr. No** | **COs** | **LLO** | **Name of Experiments/Assignment/ Sheet/ Job/ Project Activity** | **Planned Date** | | Actual date of Performance | **Rema rk** |
| **From** | **To** |
|  | CO1 | LLO 1.1 | Install given Python IDE. |  |  |  |  |
|  | CO1 | LLO 2.1 | 1. Write python program to display welcome message on screen.  2. Implement the python program to read data from user and display data on screen. |  |  |  |  |
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|  | CO1 | LLO 3.1 | Implement a python programs using following operators:  1. Arithmetic 2. Relational & logical 3. Assignment 4. Bitwise 5. Membership 6. Identity |  |  |  |  |
|  | CO1 | LLO 4.1 | Implement a python program to demonstrate the use of following conditional statements:  1. if statement 2. if..else statement 3. if..elif..else statement 4. nested if statement |  |  |  |  |
|  | CO1 | LLO 5.1 &  LLO 5.2 | \*Implement a python program to demonstrate the use of following looping statements:  1. while loop 2. for loop 3. nested loop |  |  |  |  |
|  | CO2 | LLO 7.1 | Implement a python program to perform following operations on the List: 1. Create a List 2. Access List 3. Update List 4. Delete List. |  |  |  |  |
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| **Pr. No** | **COs** | **LLO** | **Name of Experiments/Assignment/ Sheet/ Job/ Project Activity** | **Planned Date** | | Actual date of Performance | Remark |
| **From** | **To** |
|  | CO2 | LLO 9.1 | Implement python program to perform following operations on the Tuple:  1. Create a Tuple 2. Access Tuple 3. Print Tuple 4. Delete Tuple 5. Convert tuple into list and vice-versa |  |  |  |  |
|  | CO2 | LLO 10.1 | Implement a python program to perform following operations on the Set:  1. Create a Set 2. Access Set 3. Update Set 4. Delete Set |  |  |  |  |
|  | CO2 | LLO 12.1 | Implement a python program to perform following operations on the Dictionary:  1. Create a Dictionary 2. Access Dictionary 3. Update Dictionary 4. Delete Dictionary 5. Looping through Dictionary 6. Create Dictionary from list |  |  |  |  |
|  | CO3 | LLO 14.1 | Implement user defined function for given problem:  1. Function positional/required argument 2. Function with keyword argument 3. Function with default argument 4. Function with variable length argument |  |  |  |  |
|  | CO3 | LLO 18.1 | Write python program to create and use a user defined package for a given problem.. |  |  |  |  |
|  | CO4 | LLO 20.1 | Develop a python program to perform following operations: 1. Creating a Class with method 2. Creating Objects of class 3. Accessing method using object |  |  |  |  |
|  | CO4 | LLO 21.1 | Write a python program to demonstrate the use of constructors: 1. Default 2. Parameterized 3. Constructor Overloading |  |  |  |  |
|  | CO4 | LLO 22.1 | Implement a python program to demonstrate  1. Method Overloading 2. Method Overriding. |  |  |  |  |
|  | CO4 | LLO 24.1 & LLO 24.2 | \*Write a python program to implement  1. Single inheritance 2. Multiple Inheritance 3. Multilevel inheritance. |  |  |  |  |
|  | CO5 | LLO 25.1 | Implement Python program to perform following operations using panda package:  1. Create Series from Array 2. Create Series from List 3. Access element of series 4. Create DataFrame using List or dictionary |  |  |  |  |
|  | CO5 | LLO 27.1 | Write python GUI program to import Tkinter package and create a window and set its title |  |  |  |  |

***Name & Sign of Faculty Name & Sign of HOD***