Course Code	40110208			
Category	Core Subject			
Course Title	Python Programming			
Scheme and Credits	Theory	Tutorial	Lab	Credits
	0	0	4	2
Pre-requisites (if any)	Basic Programming knowledge.			

1. Course Objectives:

1	To acquire programming skills in core Python.
2	To query Internet APIs for data and extract useful information from them.
3	Illustrate the process of structuring the data using lists, dictionaries, tuples and sets.
4	Able to learn to use new modules and build APIs on their own.
5	To develop the skill of designing Graphical user Interfaces in Python Infer the Object-oriented Programming concepts in Python.

2. Course Contents

Unit	Course Contents	Weightage
1	**Python Basics :** • General Introduction • Sequences and Iteration • Booleans and Conditionals • Sequence Mutation and Accumulation Patterns	**20%**
2	**Python Functions, Files, and Dictionaries :** • Files and CSV Output • Dictionaries and Dictionary Accumulation • Functions and Tuples • More Iteration and Advanced Functions • Sorting	**20%**
3	**Data Collection and Processing with Python** • Nested Data and Nested Iteration • Map, Filter, and List Comprehensions • Internet APIs	**20%**
4	**Python Classes and Inheritance** • Classes • Inheritance • Unit Testing and Exceptions	**20%**

5	**Python Project: pillow, tesseract, and opencv** • The Python Imaging Library • Tesseract and Optical Character Recognition • Computer Vision with OpenCV	**20%**

Reference Books :

1) Core Python Programming, 3ed: Covers fundamentals to advanced topics like OOPS, Exceptions, Data structures, Files, Threads, Net   [R. Nageswara Rao (Author)]
2) Python: The Complete Reference [Martin C. Brown (Author)]

Reference Links:

1) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum
2) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum
3) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum
4) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum
5) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum
6) https://www.coursera.org/o/ljuniversity/admin/programs/mca-learning-program-c7npc/curriculum