

NIRMA UNIVERSITY

Institute:	Institute of Management
Name of Programme:	Executive Diploma Programme (Business Analytics)
Course Code:	EDP0CCIM02
Course Title:	Python Programming
Course Type:	Core
Year of introduction:	2021-22

Credit Scheme

L	T	Practical component				C
		LPW	PW	W	S	
2	0	0	0	0	0	2

Course Learning Outcomes (CLO):

After the successful completion of the course, students will be able to:

1. Elaborate on the technical aspects of object-oriented programming
2. Create basic programs in Python for real world scenarios
3. Discuss on the use of Python in data processing

Syllabus:

Unit

Syllabus

Total Teaching Hours: 20

Teaching hours

Unit-I **Fundamentals of Python**

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- Basics of algorithms and Flowchart
- Introduction to Object Oriented Programming
- Data Types and Variables
- Input and Output
- Logical Expressions
- Using the Python Debugger
- Lists and Loops
- Numeric and Date Functions
- Working with Strings
- Functions

Unit-II **Data Analysis using Python**

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- Tuples, Lists, Dictionaries, and Sets
- NumPy, Pandas, Matplotlib
- Graphics Programming using Python

- File Handling in Python
- Introduction to various libraries
- Web Scraping Tools for Data Extraction
- Connect, Create Database, Table via python

Suggested Readings/ References:

1. Lutz, M., *Learning Python: Powerful Object-Oriented Programming*. O'Reilly Media, Inc.
2. Kamthane, A. N., & Kamthane, A. A. *Programming and Problem Solving with Python*. McGraw-Hill Education.
3. Gowrishankar, S., & Veena, A. *Introduction to Python Programming*. CRC Press.

L=Lecture, T=Tutorial, P=Practical, C=Credit

w.e.f. Academic Year 2021-22 and onwards