PROGRAM	**Master of Business Administration**
SEMESTER	**2**
COURSE TITLE	**Programming And Coding**
COURSE CODE	**04MB0210**
COURSE CREDITS	**02**
COURSE DURATION	**28 Hrs (28 Sessions of 60 Minutes each)**

COURSE OUTCOMES:

- Ability to devise a solution to a problem in various dimensions.
- Ability to express a solution in algorithmic and graphical forms.
- Ability to analyze and implement solutions using programming in C and Python language.

COURSE CONTENTS:

Unit No	Unit / Sub Unit	Sessions
I	**Introduction of Programming & Logic development** ● Concept of programming language and its futures ● Introduction of Algorithms with its looping features. ● Concept of flowchart with its standard symbols ● Overview about Programming C language with its features and applications ● Introduction of C program structures / sections. ● Concept of Tokens, Keywords, Identifiers, variable & Concepts, Data types ● Overview of various operators & I/O statements of Programming C. ● Control structure statements of C: If condition and looping structure	10
II	**Python Numpy library** ● Introduction of Python Programming language and its features, ● Installation steps & overview of IDE of Python. ● Array attributes, array creation routines, array from existing data, Array from ranges, ● Concept of indexing, slicing, binary operators, ● Overview of histogram with matplotlib.	09
III	**Python Pandas library.** ● Library Installation procedure ● Introduction to Series, data frame and pane, ● Concept of Reindexing and sorting ● Working with text data, ● Introduction of Statistical functions, aggregations, ● Categorical data and visualization.	09

EVALUATION:

The students will be evaluated on a continuous basis and broadly follow the scheme given below:

	Component	Weightage
A	Continuous Evaluation Component (Assignments / Presentations/ Quizzes / Class Participation/ etc.)	0% (C.E.C.)
B	Internal Assessment	50% (I.A.)
C	End-Semester Examination (Practical/Viva)	50% (External Assessment)

SUGGESTED READINGS:

Text Books:

Sr. No	Author/s	Name of the Book	Publisher	Edition & Year
T-01	E Balagurusamy	Programming in ANSI C	Tata McGraw Hill	7th Edition
T-02	Barry, Paul, Shroff	Head First Python: a brain friendly guide	Shroff Publishers & Distributors Pvt. Ltd.	2nd Edition.

Reference Books:

Sr. No	Author/s	Name of the Book	Publisher	Edition &Year
R-01	Herbert Schildt,	The complete Reference,	Tata McGraw Hill	11th Edition
R-02	Hunt, John	A Beginners Guide to Python 3 Programming	Springer	2019

Online Web References:

1) www.tutorialspoint.com/cprogramming (Unit - 1)

2) www.tutorialspoint.com/numpy (Unit 2)

3) www.tutorialspoint.com/pandas (Unit 3)