



# MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

## COURSE CONTENT

PYTHON PROGRAMMING								
II SEMESTER								
Course Code	Category	Hours/Week			Credits	Maximum Marks		
24MB014A	CORE	L	T	P	C	CIE	SEE	Total
		4	0	-	4	40	60	100
Contact Classes:60	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 60			
<b>Prerequisite:</b> Basic knowledge of computers and internet fundamentals								

### COURSE OVERVIEW:

This course provides an understanding of the concepts, evolution, and business environment of electronic commerce. It explains various e-commerce business models, digital infrastructure, and payment systems used in the digital economy. The course covers logistics, supply chain management, and fintech innovations supporting online business operations. It also focuses on e-marketing strategies, social commerce, and opportunities in rural and emerging markets. Government initiatives and digital transformation in India are discussed to understand the growth of e-commerce. The course further introduces legal and regulatory aspects to enable informed and responsible digital business decision-making.

### COURSE OBJECTIVES:

- To Handle Strings and Files in Python.
- To Understand Lists Dictionaries and Regular expressions in Python.
- To Understand FILES, Multithread programming in Python.
- To Understand GUI in Python.
- To develop Python programs with conditionals and loops.

### COURSE OUTCOMES: After Completion of the course, students should be able to

1. Explain Python's foundational concepts encompass object types, operators, built-in functions and numerical operations that drive programming in Python.
2. Explain the use of conditionals, loops, list comprehensions, generator expressions and built-in functions for sequences, mappings set types in Python.
3. Work with files and handle errors in Python using built-in tools, context managers and custom exceptions.
4. Explore how functions work in Python, manage arguments, use functional programming ideas and review how modules help organize code.
5. Assess multithreading concepts and Python's threading modules, explore GUI application development using Tkinter and other Python GUI frameworks

## UNIT-I PYTHON BASICS, PYTHON OBJECTS

Standard Types, Built-in Types, Internal Types, Standard Type Operators, Standard Type Built-in Functions, Categorizing the Standard Types, Unsupported Types.

**Python Numbers:** Introduction to Numbers, Integers, Floating Point Real Numbers, Complex Numbers, Operators, Built-in Functions.

## UNIT-II CONDITIONALS AND LOOPS

if, else, elif, for, while, break, continue, pass, List comprehensions, Generator expressions. **Sequences:** Strings Lists, and Tuples- Built-in Functions, Special features. Mapping and Set Types: Dictionaries, Sets- Built-in Functions.

## UNIT-III FILES AND INPUT/OUTPUT

File Objects, File Built-in Functions, File Built-in Methods, File Built-in Attributes, Standard Files, Command-line Arguments, File System, File Execution, Persistent Storage Modules, Related Modules.

**Exceptions:** Exceptions in Python, Detecting and Handling Exceptions, Context Management, Exceptions as Strings, Raising Exceptions, Assertions, Standard Exceptions, Creating Exceptions, Exceptions and the sys Module.

## UNIT-IV FUNCTIONS AND FUNCTIONAL PROGRAMMING

Calling Functions, Creating Functions, Passing Functions, Formal Arguments, Variable-Length Arguments, Functional Programming. **Modules-**

## UNIT-V MULTITHREADED PROGRAMMING

Introduction, Threads and Processes, Python Threads, the Global Interpreter Lock, Thread Module, Threading Module.

**GUI Programming:** Introduction, Tkinter and Python Programming, Brief Tour of Other GUIs, Related Modules and Other GUIs.

### TEXT BOOKS:

1. Core Python Programming, Wesley J. Chun, Second Edition, Pearson.
2. Think Python, Allen Downey, Green Tea Press
3. Introduction to Python, Kenneth A. Lambert, Cengage
4. Python Programming: A Modern Approach, Vamsi Kurama, Pearson
5. Learning Python, Mark Lutz, O'Reilly.

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### ELECTRONIC RESOURCES:

1. <https://www.youtube.com/watch?v=7L7tub-zRIo> — *E-Commerce Full Course for Beginners (Explained)*

2. [https://www.youtube.com/playlist?list=PLZ1A0Gpn\\_vH\\_NT5zPVp18nGe\\_W9LqBEo6](https://www.youtube.com/playlist?list=PLZ1A0Gpn_vH_NT5zPVp18nGe_W9LqBEo6) — *E-Commerce Tutorials (UI/UX, Business Models, Digital Marketing)*

#### **MATERIALS ONLINE:**

1. Course template
2. Tutorial question bank
3. Tech talk and Concept Video topics
4. Open-ended experiments
5. Definitions and terminology
6. Assignments
7. Model question paper – I
8. Model question paper – II
9. Lecture notes
10. PowerPoint presentation
11. Drishya Siksha Sangrah (DSS) Videos

