### **Course – Python Scripting**

# 1. Python Basics

**Running Python** 

Hello, World!

Literals

**Python Comments** 

**Data Types** 

Variables

Writing a Python Module

print() Function

Named Arguments

Collecting User Input

**Getting Help** 

### 2. Functions and Modules

**Defining Functions** 

Variable Scope

**Global Variables** 

**Function Parameters** 

**Returning Values** 

**Importing Modules** 

#### 3. Math

**Arithmetic Operators** 

Modulus and Floor Division

**Assignment Operators** 

**Built-in Math Functions** 

The math Module

The random Module

Seeding

# 4. Python Strings

**Quotation Marks and Special Characters** 

String Indexing

**Slicing Strings** 

Concatenation and Repetition

**Common String Methods** 

**String Formatting** 

Formatted String Literals (f-strings)

**Built-in String Functions** 

# 5. Iterables: Sequences, Dictionaries, and Sets

Definitions

Sequences

**Unpacking Sequences** 

Dictionaries

The len() Function Sets \*args and \*\*kwargs

6. Flow Control
Conditional Statements
The is and is not Operators
Ternary Operator
Loops in Python
The enumerate() Function
Generators

**List Comprehensions** 

7. Virtual Environments
Virtual Environment
Creating a Virtual Environment
Activating and Deactivating a Virtual Environment
Deleting a Virtual Environment

8. Regular ExpressionsRegular Expression SyntaxPython's Handling of Regular Expressions

 Unicode and Encoding Bits and Bytes Hexadecimal Numbers Encoding

10. File ProcessingOpening FilesThe os and os.path Modules

11. Exception Handling
Wildcard except Clauses
Getting Information on Exceptions
The else Clause
The finally Clause
Using Exceptions for Flow Control
Raising Your Own Exceptions
Exception Hierarchy

12. Python Dates and Times
The time Module
The datetime Module

13. Running Python Scripts from the Command Line sys.argv sys.path