**Python** **Course** **Content(6 Weeks)**

**Introduction** **to** **Python** **Programming**  Why do we need Python?

 Program structure in Python

**Execution** **steps**

 Interactive Shell

 Executable or script files.  User Interface or IDE

**Memory** **management** **and** **Garbage** **collections**  Object creation and deletion

 Object properties

**Data** **Types** **and** **Operations**  Numbers

 Strings  List

 Tuple

 Dictionary

Set

 Other Core Types

**Statements** **and** **Syntax** **in** **Python**

 Assignments, Expressions and prints  If tests and Syntax Rules

 While and For Loops

 Iterations and Comprehensions

**File** **Operations**  Opening a file  Using Files

 Other File tools

**Functions** **in** **Python**

 Function definition and call  Function Scope

 Arguments

 Function Objects

 Anonymous Functions

**Modules** **and** **Packages**

 Module Creations and Usage

 Module Search Path  Module Vs. Script

 Package Creation and Importing

**Classes** **in** **Python**

 Classes and instances

 Classes method calls

 Inheritance and Compositions

 Static and Class Methods

 Bound and Unbound Methods

 Operator Overloading

 Polymorphism

**Exception** **Handling** **in** **Python** **Programming**

 Default Exception Handler

 Catching Exceptions

 Raise an exception

 User defined exception

**Thread**

* Introduction to Threads in python
* Thread module
* Thread Life Cycle
* Time and Date

**Network & Socket Programming**

* Network Programming
* Working with XML Files
* Working with SMTP

**GUI Programming in Python**

Tkinter in details

**Database with Python**

**MySql Introduction**

**Mysql Integration with Python**