



# KONGU ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

**ERODE – 638 107**

**DEPARTMENT OF COMPUTER SCIENCE (P.G.)**

**VALUE ADDED COURSE– SYLLABUS**

**20VMCPP – PYTHON PROGRAMMING**

## Course Objective:

To develop problem solving and programming skills using Python language and make the students familiar in writing Python programming.

## Paper I – PYTHON PROGRAMMING

<b>UNIT I</b>	<b>Introduction</b>	4 Hours
Introduction – setting up environment. Basic syntax of python: Multi-line statements, Quotations in Python, Lines and indentation, Comments, Blank lines, Identifiers, Keywords. Data types: Numbers, Strings, Tuples and sequences, Lists, Dictionaries.		
<b>UNIT II</b>	<b>Sets, Conditional and Looping Statements</b>	4 Hours
Sets: Uses of sets, Built-in functions of set, frozen set. Conditional statements: if statements, if..else statement, elif statement. Loops: While loop, For loop, Loop Control statements.		
<b>UNIT III</b>	<b>Files and Exceptions</b>	4 Hours
Files: Files and other operations on Files. Input and output formatting, Errors and exceptions: Syntax Errors – Runtime Errors or Exceptions, Exception handling, User-defined functions, Finally clause.		
<b>UNIT IV</b>	<b>Functions and Modules</b>	4 Hours
Functions: Function parameters – scope of the variables. Modules: Importing a module, search order followed by interpreter to locate a module, built-in function related to modules, packages.		
<b>UNIT V</b>	<b>OOPS</b>	4 Hours
OOPS: Classes, Inheritance, Garbage collection, method overriding, data encapsulation.		
<b>Total Hours</b>		<b>20 Hours</b>

## Text Book:

1. Fundamentals of Open Source Software, M.N. Rao, Kindle Edition, PHI, 2015.

## Reference Book(s):

1. Python Tutorial Release 3.2.3, Guido van Rossum and Fred L. Drake, Jr., editor, 2012, Python Software Foundation.
2. Python Practice Book Release 2014-08-10, Anand Chitipothu, 2014.
3. Head First Python, Paul Burry, O'Reilly Media Inc., January 2015.
4. Core Python Programming, Wesley J. Chun, Prentice Hall PTR, 2000.



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