

### VALUE ADDED COURSE

|                                                         |          |                         |                  |             |
|---------------------------------------------------------|----------|-------------------------|------------------|-------------|
| <b>Programme Code:</b>                                  | B.Sc.    | <b>Programme Title:</b> | Mathematics      |             |
| <b>Course Code:</b>                                     | 21UMS6VA | <b>Title</b>            | <b>Batch:</b>    | 2021 - 2024 |
| <b>Lecture Hrs./Week<br/>or<br/>Practical Hrs./Week</b> | -        | PYTHON                  | <b>Semester:</b> |             |
|                                                         |          |                         | <b>Credits:</b>  | 2*          |

| Units           | Content                                                                                                                                                                                                                                                                                                                                                                                                                                  | Hrs. |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>Unit I</b>   | <b>Basics of python programming</b><br>Features Of Python – The Future Of Python-Writing And Executing First Python Program –Literal Constants: Numbers, Strings-Variables And Identifiers-Data Types:<br>Assigning Or Initializing Values To Variables, Multiple Assignment, Multiple Statements On a Single Line.                                                                                                                      | 5    |
| <b>Unit II</b>  | <b>Decision Control Statements&amp;Functions</b><br>Basic Loop Structures/Iterative Statements:While loop, for Loop, Nested Loops-The Break Statement–The Continue Statement-The pass Statement-The Else Statement Used With Loops.<br>Need for Functions-Function Declaration, Function Call-Function Parameters, Variable Scope and Lifetime: Local and Global Variables, Using the Global Statement.                                  | 8    |
| <b>Unit III</b> | <b>Functions&amp;Modules</b><br>More on Defining Functions: Required Arguments, Keyword Arguments, Default Arguments, Variable-Length Arguments, Lambda Functions or Anonymous Function.<br>The from an Important Statement-Name of Module, Making Your own Modules-The dir() Function, The Python Module-Modules and Name Spaces-Packages in Python, Standard Library Modules-Globals(), Locals(), and Reload(), Function Redefinition. | 7    |
| <b>Unit IV</b>  | <b>Python Strings</b><br>Concatenating,Appending, and Multiplying Strings-Strings or Immutable – String Formatting Operator-Built-in String Methods and Functions-Slice, Operations: Specifying Stride While Slicing Strings-ord() and chr() Functions in and not in operators, Comparing Strings–Iterating String-The String Module.                                                                                                    | 5    |

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| <b>Unit V</b> | <b>File Handling</b><br>File Path-Types of Files: ASCII Text Files, Binary Files-Opening and Closing Files: The Open() Function, The File Object Attributes, The Close() Method Reading and Writing Files: Write() and Writelines() Methods, Append() Method, The Read() and Readlines() Methods, Opening Files using with Keyword, Splitting Words, Some Other Useful File Methods, File Positions, Renaming and Deleting Files. | 5  |
|               | <b>Total Contact Hrs.</b>                                                                                                                                                                                                                                                                                                                                                                                                         | 30 |



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