Daffodil Institute of IT

Department of Computer Technology

Semester Plan

Course : Programming Essential

Course Code : 66631

Semester : 3rd

OBJECTIVES

• **To develop knowledge and skill on programming Basics.**

• **To develop knowledge and skill to create, compile, debug & execute a program.**

SHORT DESCRIPTION

Basics of programming Language; Basics of Python; Variables; Data types; Strings; Operators; Decision making and Looping statements; Lists; Tuples; Functions; File operations;

Course Teacher:

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SL NO	SUBJECT CODE	NAME OF SUBJECT	T	P	C	MARKS				TOTAL
						THEORY		PRACTICAL		
						Cont. Assess	Final Exam	Cont. Assess	Final Exam	
1	66631	Programming Essentials	2	3	3	40	60	25	25	150

Course Plan

CLASS	CHAPTER	DETAIL DESCRIPTION
01	01	**1. Basics of Programming** 1.1. State Computer Program and Programming 1.2. Explain Programming Language and its classification. 1.3. State Generation of Programming Languages. 1.4. Describe Translator Program.
02		**1. Basics of Programming** 1.5. Uses of Computer Programs 1.6. Describe Algorithm and Flowchart. 1.7. Prepare Algorithm and Flowchart for simple problems. 1.8. Explain the Process of Program Planning.
03	02	**2. BASICS OF PYTHON** 2.1. Describe the History of Python. 2.2. Explain the features of Python. 2.3. Describe the Structure of Python Program 2.4. State Identifiers and Keywords
04		**2. BASICS OF PYTHON** 2.5. State Lines, Indentation, Multi-Line Statements and Multiple Statements on a Single Line 2.6. State Quotation and Comments in Python 2.7. State Command Line Arguments
05	03	**3. VARIABLE AND DATA TYPES** 3.1. Assigning Values to Variables 3.2. State Multiple Assignment
06		**3. VARIABLE AND DATA TYPES**

		3.3. Describe Standard Data Types 3.4. Explain Data Type Conversion
07	04	**4. STRINGS** 4.1. State Accessing Values in Strings and Updating Strings 4.2. Uses of Escape Characters
08		**4. STRINGS** 4.3. Explain String Special Operators and String Formatting Operator 4.4. Describe Triple Quotes and Unicode String 4.5. Write Simple programs using strings.
09	05	**5. PYTHON OPERATORS** 5.1. State Operators and their types. 5.2. Describe Arithmetic Operators, Comparison Operators and Logical Operators
10		**5. PYTHON OPERATORS** 5.3. State Assignment Operators, Bitwise Operators and Membership Operators Identity Operators 5.4. Explain Operators Precedence
11	06	**6. DECISION MAKING** 6.1. Describe the conditional and unconditional branching flow. 6.2. Explain If Statement and If...else Statement
12		**6. DECISION MAKING** 6.3. State the nested if Statement 6.4. Write simple program using if, if...else and nested if.
13	07	**7. LOOPS** 7.1. Describe the conditional and unconditional Looping flow. 7.2. State For Loop 7.3. State While Loop
14		**7. LOOPS** 7.4. Explain The Infinite Loop and Nested Loops 7.5. State Break, Continue and pass Statement 7.6. Write simple program using for and while loop
15	08	**8. LISTS** 8.1. Define Lists and its type. 8.2. Assigning Values in Lists 8.3. Explain Updating and Deleting List Elements
16		**8. LISTS** 8.4. State Basic List Operations 8.5. Explain Built-in List Functions and Methods 8.6. Write simple program using Lists.
17	09	**9. TUPLES** 9.1. Assigning Values in Tuples 9.2. Explain Updating and Deleting Tuple Elements 9.3. Describe Basic Tuples Operations
18		**9. TUPLES** 9.4. State No Enclosing Delimiters: 9.5. Explain Built-in Tuple Functions 9.6. Write simple program using Tuples.
19	10	**10. FUNCTIONS** 10.1. Defining a Function 10.2. State Calling a Function 10.3. Explain Passing by Reference Versus Passing by Value
20		**10. FUNCTIONS** 10.4. Describe Function Arguments 10.5. Uses of Date and Time Functions. 10.6. Write simple program using functions
21	11	**11. FILES I/O** 11.1. Printing to the Screen 11.2. Reading Keyboard Input 11.3. Uses of input Function
22		**11. FILES I/O** 11.4. Describe Opening and Closing Files 11.5.Explain Reading and Writing Files