

LESSON PLAN

Program Name	Computer Engineering
Subject Name	Python Programming
Subject Code	CO-17642
Semester	6 th
Subject Teacher Name	Er. Suneel Kumar

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	Pr	Th	Pr	Total	Th	Pr	Total
1.	Python Programming	4	4	30	20	50	100	50	150
Reference Books		(i) Programming in Python 3: A Complete Introduction to the Python Language by Mark Summerfield, Atlantic Publishers and Distributors. (ii) Python For Dummies by Stef Maruch and Aahz Maruch, Pearson Education.							

Course Outcomes (COs)

CO - 1	Use the syntax and semantics of Python programming language.
CO - 2	Make use of flow control structures in programs.
CO - 3	Organize complex programs around a set of functions and modules.

Teaching Plan

Unit No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	Introduction	31/01/24		
	Python language - need and features	01/02/24		
	Python advantages and versions	02/02/24		
	Structure of a typical Python and code indentation	03/02/24		
	Application areas of Python	07/02/24		
2	Python tokens - identifiers and operators	08/02/24		
	Python tokens - keywords, delimiters and literals	09/02/24		
	Variables and naming conventions in Python	14/02/24		
	Python statements - simple and compound	15/02/24		
	Comments, reading from standard input using input() , Writing to standard output using print()	16/02/24		
	Data types - numbers, strings, tuples,lists, dictionaries	17/02/24		
	Data type - ranges & sets, mutable & immutable	21/02/24		
	Python numbers: integers, floating-point and complex	22/02/24		
String literals - quoted and triple quoted strings.	23/02/24			

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File

	multiline strings			
	Numeric literals, escape sequence, type() function	28/02/24		
3	Sequence types -list, tuple, range, string; dictionary, set.	29/02/24		
	List methods -count(), index(), append(), insert(),remove(), pop(), reverse(), sort()	01/03/24		
	String methods -capitalize(), count(), find(), format(), replace(), lower(), upper(), title();	02/03/24		
	Set methods -add(), clear(), remove(), discard(), intersect(), copy(), difference(), union();	06/03/24		
	Dictionary methods -keys(), values(), pop(), items(), clear().	07/03/24		
	List comprehension, set comprehension, dictionary comprehension	13-15/03/24		
	Chapter Revision	16/03/24		
4	Arithmetic operators -addition, subtraction, multiplication, division, truncated division, modulus, exponentiation; arithmetic expressions	20-21/03/24		
	comparison operators	22/03/24		
	Logical operators	23/03/24		
	Comparison chaining,	27/03/24		
	Bitwise operators	28/03/24		
	Operations on sequences - concatenation, repetition, membership testing	30/03/24		
	Operations on sequences -indexing, slicing	03/04/24		
	Chapter Revision	04-05/04/24		
5	if statement and its variants -if, if...else, if...elif...else	06/04/24		
	loops -while	10/04/24		
	for; use of else in loops	12/04/24		
	Jump statements -break, continue, pass	18/04/24		
	with statement, exception handling.	19-20/04/24		
	Chapter Revision	24-26/04/24		
6	Python modules and packages	27/04/24		
	Functions, def statement, parameters, named parameters, default values of parameters, function signatures	01-02/05/24		
	Variable number of arguments	03/05/24		
	return statement, lambda expression.	04/05/24		
7	Opening a file, file opening modes	08/05/24		
	Read from a file -read(), readline()	09/05/24		
	writing to a file -write(), writelines(),	15/05/24		

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truncate(), flush(); navigating in a file -seek(), tell(), use of with statement	16/05/24		
Revision	17-25/05/24		

Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1, Unit-2 and Unit-3	20/03/2024		
A-2	Unit-4, Unit-5 and Unit-6	08/05/2024		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1, Unit-2 and Unit-3	3 rd Week of March		
Class Test -2	Unit-4 and Unit-5	3 rd Week of April		
House Test - 1	Unit-1, Unit-2, Unit-3, Unit-4 and Unit-5	3 rd Week of May		

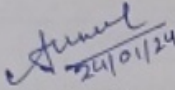
Lab Plan

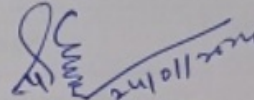
Sr. No.	Name of Practical	Proposed Date		Actual Date		Remarks
		G1	G2	G1	G2	
1	To install and configure Python and IDLE on Windows/ Linux platforms.	29/01/24 05/02/24	30/01/24 07/02/24			
2	To practice arithmetic expressions on Python interactive shell.	08/02/24 12/02/24	13/02/24 14/02/24			
3	To read data from standard input and print information on standard output.	15/02/24 19/02/24	20/02/24 21/02/24			
4	To create variables of various data types and verify them using type() function.	22/02/24 26/02/24	27/02/24 28/02/24			
5	To demonstrate various operations on strings.	29/02/24	29/02/24			
6	To demonstrate list comprehension and various operations on lists.	04/03/24	05/03/24			
7	To demonstrate set comprehension and various operations on sets.	07/03/24	06/03/24			
8	To demonstrate dictionary comprehension and various operations on dictionaries.	11/03/24	12/03/24			
9	To demonstrate various operations on ranges.	14/03/24	13/03/24			
10	To demonstrate the working of if statement and its variants.	18/03/24 28/03/24	19/03/24 27/03/24			
11	To compute the factorial of a given number using while loop.	01/04/24	02/04/24			
12	To generate first n terms of a fibonacci series using for loop.	04/04/24	03/04/24			

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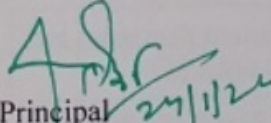
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13	To use for loop to manipulate lists.	08/04/24	09/04/24			
14	To demonstrate exception handling mechanism of Python.	11/04/24	10/04/24			
15	To write a function to compute greatest of two numbers.	18/04/24	16/04/24			
16	To practice continue, break and pass statements.	22/04/24	23/04/24			
17	To demonstrate named parameters and default parameter values of a Python function.	26/04/24	24/04/24			
18	To demonstrate lambda functions.	02/05/24	01/05/24			
19	To copy the contents of one file into another.	09/05/24	07/05/24			
20	To demonstrate the use of with statement.	20/05/24	21/05/24			


24/01/24
(Signature of Teacher)


24/01/24
(Signature of HOD)

Approved


Principal 24/1/24
Govt. Polytechnic for Women Rehan