Department of Computer Engg.
Govt. Polytechnic for Women Rehan
Distt. – Kangra (H.P.) - 176022

LESSON PLAN

Program Name	Computer Engineering
Subject Name	Computer Programming using 'C'
Subject Code	ITPC201 & ITPC211
Semester	3rd
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	Total	Th	Pr	Total
1.	Computer Programming using 'C'	3(Th)+1(DCS)+4(Lab)	40	40	80	60	60	120
Reference Books		(i) Programming in ANSI 'C' by E. Balaguruswamy , Tata McGraw Hill Publication						
		(ii) Let Us C by Yashwant Kanetkar BPB Publication						

Course Outcomes (COs)

CO – 1	Understand the basic terminology of computer programming.
CO – 2	Write algorithms and draw flowcharts for simple computational problems.
CO – 3	Write, edit, compile, debug, run simple programs in 'C'.
CO – 4	Make use of flow control structures in programs.
CO – 5	Organize complex programs around a set of functions.

Teaching Plan

Unit No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	Orientation	02/08/24		
	Program Design Tools - Algorithm	03/08/24		
	Program Design Tools - Flowchart	07/08/24		
	Program Design Tools – Flowchart, Pseudocode	08/08/24		
	Evolution of Programming Languages	09/08/24		
	Programming Terminology - Program, Compiler, Interpreter, Linker	14/08/24		
	Programming Terminology - Source Code, Libraries, Syntax and Semantic Errors, Bugs.	16/08/24		
2	Brief history & features of C language.	17/08/24		
	Character Set, Identifier	21/08/24		
	Keywords , Literals	22/08/24		
	Variables , Constants	23/08/24		
	Structure of a 'C' Program	24/08/24		
	Comments	28/08/24		

	Preprocessor Directives	29/08/24		
	Data Types	30/08/24		
	Type Casting and Storage Classes.	31/08/24		
3	Standard Input, Standard Output, Standard Error	04/09/24		
	I/O Redirection, format specifiers	05/09/24		
	Unformatted I/O Functions - getchar(), putchar(),	06/09/24		
	Unformatted I/O Functions - gets(), puts().	11/09/24		
	Formatted I/O Functions - printf(), scanf()	12/09/24		
	CT1 (Tentative)	13/09/24		
4	Arithmetic Operators	18/09/24		
	Logical Operators and Relational Operators	19/09/24		
	Bitwise Operators	20/09/24		
	Assignment Operators	21/09/24		
	Conditional Operator , Special Operators	25/09/24		
	Expressions, Associativity	26/09/24		
	Order of Precedence of Operators	27/09/24		
5	Selection Statements: if, if...else	28/09/24		
	Nested if, if...else if Ladder	03/10/24		
	switch...case	04/10/24		
	Loops - while	05/10/24		
	do...while	09/10/24		
	for	10/10/24		
	Jump Statements - goto, break	11/10/24		
	continue, return	16/10/24		
	Nested Loops & Infinite Loops	18/10/24		
	CT2(Tentative)	19/10/24		
6	Array, Memory Representation, 1-Dimensional Arrays : Declaration and Initialization	23/10/24		
	Two-Dimensional Arrays: Declaration and Initialization.	24/10/24		
	Enumeration, Strings	25/10/24		
	String Constants, Escape Sequences	26/10/24		
	Standard String Functions - srtlen(), strrev(), strcmp(), srtcpy(), strcat()	01/11/24		
	Structures - Declaration, Initialization, Assignment	06/11/24		
	Unions - Declaration, Initialization, Assignment	07/11/24		

	Pointer - Declaration, Initialization, Assignment	08/11/24		
	Dynamic Memory Allocation: malloc(), calloc(), free()	13/11/24		
	HT			
7	Function: Definition and Prototype	20/11/24		
	Formal and Actual Parameters, Function Call	21/11/24		
	Call by Value and Call by Reference	22/11/24		
	Arrays as Function Arguments	23/11/24		
	Recursion	27/11/24		
	Revision	28/11/2024 to 02/12/2024		

Assignments:-

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1 and Unit-2	01/09/2024		
A-2	Unit-3 and Unit-4	01/10/2024		
A-3	Unit-5, Unit-6 and Unit-7	27/11/2024		

House Test/Class Test:-

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1 and Unit-2	2nd Week of September		
Class Test -2	Unit-3 and Unit-4	3rd Week of October		
House Test-1	Unit-1 to Unit-6	2nd Week of November		

Lab Plan:-

Sr. No.	Name of Practical	Proposed Date		Actual Date		Remarks
		G1	G2	G1	G2	
1	To set up and get familiar with the programming environment (Editor, Compiler, Linker)	03/08/24 to 23/08/24	02/08/24 to 23/08/24			
2	To declare, initialize and use variables of various data types in 'C'.	31/08/24	30/08/24			
3	To demonstrate printf() and scanf() functions with different format specifiers.	07/09/24	06/09/24			
4	To demonstrate various arithmetic operators and arithmetic expressions.	16/09/24 to 23/09/24	16/09/24 to 23/09/24			
5	To demonstrate various bitwise operators.	28/09/24	27/09/24			
6	To use if…else statement to check whether a given year is a leap year.	05/10/24	04/10/24			

7	To use switch…case statement to print the numbers entered by the user (1-10) in words	07/10/24	07/10/24			
8	To use while statement to reverse the digits of a given number.	14/10/24	14/10/24			
9	To use for statement to print the multiplication table of a given number.	19/10/24	18/10/24			
10	To implement a menu driven arithmetic calculator using do while loop.	21/10/24	21/10/24			
11	To read the marks of 10 students in an array and calculate their average.	26/10/24	25/10/24			
12	To read two matrices and compute their sum using 2-Dimensional arrays.	04/11/24	01/11/24			
13	To reverse the characters of a given string	11/11/24	04/11/24			
14	To demonstrate strlen(), strcat(), strcmp() functions.	16/11/24	08/11/24			
15	To swap values of two variables using a function.	18/11/24	11/11/24			
16	To compute the factorial of a given number using recursion.	23/11/24	18/11/24			
17	To read the data of a student in a structure and print it.	25/11/24	22/11/24			
18	To count the number of vowels in a given string using a pointer.	30/11/24	25/11/24			

01/08/24

(Signature of Teacher)

1/8/2024

(Signature of HOD)

Approved

02/8/24

Principal

Govt. Polytechnic for Women Rehan