



Atal Bihari Vajpayee Govt Institute of Engineering & Technology
Pragatinagar, Shimla (H.P.) – 171202
DEPARTMENT OF COMPUTER ENGINEERING

LESSON PLAN

Academic Year	2026-2027
Semester	3 rd
Subject Code	Computer Programming using C
Subject Title	ITPC201
Name of Faculty	Er. Gagan Prakash Negi
Semester Start & End Dates	01.08.2026 to 28.11.2026

Study and Evaluation Scheme

Sr. No.	Name of the Subject	Hours/Week			Total Hrs/Week	Credits	Evaluation Scheme						
							Internal		External				Total
							Th	Pr	Th	Hrs	Pr	Hrs	
1.	Computer Programming using C	3	--	1	03	3	40	--	60	03	--	--	100

Course Outcomes:

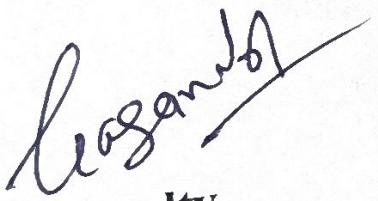
- CO 1: Understand the basic terminology of computer programming.
- CO 2: Write algorithms and draw flowcharts for simple computational problems.
- CO 3: Write, edit, compile, debug, run simple programs in 'C'.
- CO 4: Make use of flow control structures in programs.
- CO 5: Organize complex programs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

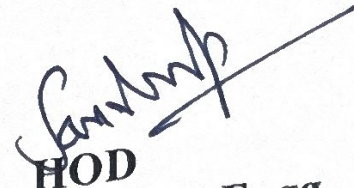
Day	Topic of Discussion	Topic Details	Delivery Method
Unit 1: INTRODUCTION TO PROGRAMMING			
Day 1	Algorithm	Definition and phases of Algorithm and practice	Chalk and Talk
Day 2	Flowchart	Definition, basic of flowchart, guidelines for drawing a flowchart, advantage of using flow charts and limitations of flow charts	Chalk and Talk
Day 3	Pseudocode, Evolution of Programming Language	Definition of Pseudocode and different generation of language.	Chalk and Talk
Day 4	Structure of C Program	Documentation Section	Chalk and Talk
		Preprocessor, directive section, main program section,	Chalk and Talk
		Sub program section, comments	Chalk and Talk
Day 5	Compiling and Linking Section	Program, compiler, interpreter	Chalk and Talk
Day 6		Linker, Source Code, Libraries	Chalk and Talk
		Syntax and Semanti Errors, Bug	Chalk and Talk
Day 7	Program Debugging	Definition of bugs and types of errors, syntax error, logical error and run time errors	Chalk and Talk
Unit 2: INTRODUCTION TO C LANGUAGE			
Day 8	History of C Language	History and feature of C Language	Chalk and Talk
Day 9	Character Set,	Special character	Chalk and Talk
Day 10	Identifier	Definition and rules for naming of identifier	Chalk and Talk

Day 11	C Tokens	Keyword, Literals	Chalk and Talk
Day 12		Variables, Constants	Chalk and Talk
Day 13	Data Types, Type Casting	Fundamental datatype, Derived datatype and user defined data type	Chalk and Talk
Day 16	Storage Classes	Automatic variable, Register variable, static and external variable	Chalk and Talk
Day 17	Revision	Revision of unit 2	
Day 18	Practice Test	Practice Test for Unit 2	
Unit 3: INPUT/OUTPUT			
Day 19	Input/ Output	Definition of Input/output statement	Chalk and Talk
Day 20		I/O Redirection	Chalk and Talk
Day 21	Unformatted I/O	Character I/O functions, String I/O functions	Chalk and Talk
Day 22	Formatted I/O	Scanf(), printf(),	Chalk and Talk
Day 25	Format specifier	Definition and explanation with example of different types of format specifier	Chalk and Talk
Unit 4: Operator			
Day 26	Operators	Arithmetic operators	Chalk and Talk
Day 27		Relational Operators	Chalk and Talk
Day 28		Logical and Bitwise operators	Chalk and Talk
Day 29		Assignment operator, conditional operator special operator	Chalk and Talk
Day 30		Associativity and order of Precedence of operators	Chalk and Talk
Day 31	Revision	Unit 4	
Day 32	Practice Test	Practice Test for unit 4	
Unit 5: FLOW CONTROL STATEMENTS			
Day 33	Selection statement	Selection statement, if, if..else, Nested if	Chalk and Talk
Day 34		if..else if Ladder	Chalk and Talk
Day 35		Switch case	Chalk and Talk
Day 36	Loops	Loops-while and do..while	Chalk and Talk
Day 37		for loop	Chalk and Talk
Day 38		Jump statement goto, break, continue, return	Chalk and Talk
Day 39		Nested Loop, Infinite loops	Chalk and Talk
Day 40	Revision	Revision of unit 5	
Day 41	Practice Test	Practice Test unit 5	
Unit 6: ARRAYS, STRUCTURES, UNIONS AND POINTERS			
Day 42	Array	Definition and need	Chalk and Talk
Day 43	Memory Representation	Memory representation of arrays	Chalk and Talk
Day 44	One dimensional Arrays	Definition , syntax and memory representation 1d array	Chalk and Talk
Day 45	Two dimensional Arrays	Definition , syntax and memory representation 2d array	Chalk and Talk
Day 46	Declaration and Initialization	Declaration and syntax of 1d and multidimensional array	Chalk and Talk
Day 47	Strings,	String Constants, Escape Sequence	Chalk and Talk
Day 48	Standard String Functions	Standard String Functions, strlen(), strrev(), strcmp(), strcpy(), strcat()	Chalk and Talk
Day 49	Declarations	Declaration of structure, pointer and union	Chalk and Talk
Day 50	Dynamic Memory Allocation	malloc(), calloc() and free()	
Unit 7 :FUNCTIONS			
Day 51	Basic of Functions	Definition of function, function prototype,	Chalk and Talk

Day 52	Formal and actual parameters, Function call	Formal and actual parameters, Function call	Chalk and Talk
Day 53	Passing argument to function	Call by value and call by reference	Chalk and Talk
Day 54	Arrays as Function Argument	Syntax, declaration and implementation	Chalk and Talk
Day 55	Revision	Revision of unit 7	
Day 56	Practice Test	Practice Test based on unit 7	

	Name of Book	Author Name	Publication
Prescribed Books	Problem Solving and Programming in C	C, R.S. Salaria	Khanna Publications
	Programming in ANSI C	C, E. Balagurusamy	Tata McGraw-Hill
Reference Books	Outline of Programming with C	Byron Gottfried, Schaum	McGraw-Hill
	The C Programming Language	Brian Kernighan and Dennis Ritchie	Pearson


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