

**Lesson Plan**

NAME OF THE FACULTY : Ravinder Kumar  
 DISCIPLINE : Electronics & Communication Engineering  
 SEMESTER : 3<sup>rd</sup>  
 SUBJECT : Programming in C  
 DURATION OF LESSON PLAN : 15 weeks (from 30 July 2026 to 23 Nov- 2026)

**WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-03, PRACTICAL-04 PER GROUP**

| WEEK<br>S.N.    | THEORY            |                                                                                           | PRACTICAL          |                 |                                                                                                         |
|-----------------|-------------------|-------------------------------------------------------------------------------------------|--------------------|-----------------|---------------------------------------------------------------------------------------------------------|
|                 | Lecture<br>/ Hrs. | TOPIC<br>(Including Assignment/Test)                                                      | Practical<br>/Hrs. | Lab Experiments |                                                                                                         |
| 1 <sup>st</sup> | 1                 | <b>UNIT I: Basics of C Programming</b><br>Steps in development of a program, Flow charts. | Group-1            | 1-2-3-4         | Programming exercises on executing and editing a C program.                                             |
|                 | 2                 | Steps in development of a program, Flow charts.                                           |                    |                 |                                                                                                         |
|                 | 3                 | Algorithm development.                                                                    | Group-2            | 1-2-3-4         |                                                                                                         |
| 2 <sup>nd</sup> | 4                 | Steps in development of Programme Debugging.                                              | Group-1            | 1-2-3-4         | Programming exercises on defining variables and assigning values to variables.                          |
|                 | 5                 | I/O statements. Constants and variables.                                                  | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 6                 | Data types.                                                                               |                    |                 |                                                                                                         |
| 3 <sup>rd</sup> | 7                 | Operators & Expressions.                                                                  | Group-1            | 1-2-3-4         | Programming exercises on arithmetic and relational operators.                                           |
|                 | 8                 | Formatted and Unformatted IO Statements.                                                  | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 9                 | Decision making with IF – statement, IF – Else and Nested IF.                             |                    |                 |                                                                                                         |
| 4 <sup>th</sup> | 10                | While and do-while, for loop, Break. Continue, goto and switch statements.                | Group-1            | 1-2-3-4         | Programming exercises on arithmetic expressions and their evaluation.                                   |
|                 | 11                | <b>UNIT II: Pointers and Functions</b><br>Introduction to pointers.                       | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 12                | Address operator and pointers Declaring.                                                  |                    |                 |                                                                                                         |
| 5 <sup>th</sup> | 13                | Initializing pointers                                                                     | Group-1            | 1-2-3-4         | Programming exercises on formatting input/output using print f and scan f and their return type values. |
|                 | 14                | Declaring and Initializing Single pointer<br><b>Assignment-1</b>                          | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 15                | <b>Sessional Test-1</b>                                                                   |                    |                 |                                                                                                         |
| 6 <sup>th</sup> | 16                | Introduction to functions.                                                                | Group-1            | 1-2-3-4         | Programming exercises using if statement.                                                               |
|                 | 17                | Function Declaration.                                                                     | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 18                | Function calling, definition Parameter Passing.                                           |                    |                 |                                                                                                         |
| 7 <sup>th</sup> | 19                | Function Call - by value/reference, Global and Local Variables                            | Group-1            | 1-2-3-4         | Programming exercises using if – Else.                                                                  |
|                 | 20                | <b>UNIT III: Arrays and Strings</b><br>Introduction to Arrays                             | Group-2            | 1-2-3-4         |                                                                                                         |
|                 | 21                | Array Declaration, Length of array Single dimensional array.                              |                    |                 |                                                                                                         |

| WEEK<br>S.N.     | THEORY            |                                                                            | PRACTICAL          |         |                                                     |
|------------------|-------------------|----------------------------------------------------------------------------|--------------------|---------|-----------------------------------------------------|
|                  | Lecture<br>/ Hrs. | TOPIC<br>(Including Assignment/Test)                                       | Practical<br>/Hrs. |         | Lab Experiments                                     |
| 8 <sup>th</sup>  | 22                | Array Declaration, Length of array multi dimensional array.                | Group-1            | 1-2-3-4 | Programming exercises on switch statement.          |
|                  | 23                | Arrays of characters Introduction of Strings.                              | Group-2            | 1-2-3-4 |                                                     |
|                  | 24                | String declaration and definition String related function.                 | Group-2            | 1-2-3-4 |                                                     |
| 9 <sup>th</sup>  | 25                | String related function i.e. strlen, strcpy, strcmp.                       | Group-1            | 1-2-3-4 | Programming exercises on do – while, for statement. |
|                  | 26                | Passing an array to function                                               | Group-2            | 1-2-3-4 |                                                     |
|                  | 27                | Passing a Pointers to an array and strings.                                | Group-2            | 1-2-3-4 |                                                     |
| 10 <sup>th</sup> | 28                | UNIT IV: Structures and Unions<br>Introduction- Declaration of structures. | Group-1            | 1-2-3-4 | Simple programs using pointers.                     |
|                  | 29                | Accessing structure members.<br>Assignment-2                               | Group-2            | 1-2-3-4 |                                                     |
|                  | 30                | Sessional-2                                                                | Group-2            | 1-2-3-4 |                                                     |
| 11 <sup>th</sup> | 31                | Structure Initialization.                                                  | Group-1            | 1-2-3-4 | Programs on one-dimensional, two-dimensional array. |
|                  | 32                | Pointer to a structure.                                                    | Group-2            | 1-2-3-4 |                                                     |
|                  | 33                | Introduction- Declaration of structures                                    | Group-2            | 1-2-3-4 |                                                     |
| 12 <sup>th</sup> | 34                | Introduction- Union.                                                       | Group-1            | 1-2-3-4 | Programs for comparing two strings.                 |
|                  | 35                | Declaration and accessing of Union Members.                                | Group-2            | 1-2-3-4 |                                                     |
|                  | 36                | Comparing Structure and Union.                                             | Group-2            | 1-2-3-4 |                                                     |
| 13 <sup>th</sup> | 37                | UNIT V: File Handling<br>Introduction                                      | Group-1            | 1-2-3-4 | Simple programs using functions                     |
|                  | 38                | Opening and Closing of File.                                               | Group-2            | 1-2-3-4 |                                                     |
|                  | 39                | Opening and Closing of File.                                               | Group-2            | 1-2-3-4 |                                                     |
| 14 <sup>th</sup> | 40                | Modes of Accessing Files.                                                  | Group-1            | 1-2-3-4 | Simple programs using structures and union.         |
|                  | 41                | Modes of Accessing Files.                                                  | Group-2            | 1-2-3-4 |                                                     |
|                  | 42                | Reading in the File                                                        | Group-2            | 1-2-3-4 |                                                     |
| 15 <sup>th</sup> | 43                | Writing in the File                                                        | Group-1            | 1-2-3-4 | Program on Reading and Writing data to a file       |
|                  | 44                | <b>Assignment-3</b>                                                        | Group-2            | 1-2-3-4 |                                                     |
|                  | 45                | <b>Sessional-3</b>                                                         | Group-2            | 1-2-3-4 |                                                     |