

Practical Workbook  
**CS-115**  
**Computer Programming**



Name : \_\_\_\_\_

Year : \_\_\_\_\_

Batch : \_\_\_\_\_

Roll No : \_\_\_\_\_

Department: \_\_\_\_\_

**Department of Computer & Information Systems Engineering**  
**NED University of Engineering & Technology**

# **Practical Workbook**

## **CS-115**

### **Computer Programming**



*Revised in:*

November 2025

**Department of Computer & Information Systems Engineering**  
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# Introduction

This workbook has been prepared to give students a clear and practical introduction to the C programming language. It covers the essential building blocks of programming, including variables, constants, operators, expressions. Students will also learn key control structures such as decisions and loops, work with arrays, and use both built-in and user-defined functions.

The workbook introduces file handling and provides guidance on debugging and testing programs to build strong problem-solving skills. By completing these exercises, students will develop a solid foundation in C programming and be better prepared for more advanced topics in computer science.

The Course Profile of CS-115 Computer Programming lays down the following Course Learning Outcome:

**Practice** Computer Programming using constructs of a high level language(C3, PLO-5).

All lab sessions of this workbook have been designed to assist the achievement of the above CLO. A rubric to evaluate student performance has been provided at the end of the workbook.

# Contents

<b>Lab Session No.</b>	<b>Title</b>	<b>Teacher's Signature</b>	<b>Date</b>
1	Familiarization with Programming Environment using VS Code		
2	Fundamentals of Programming Language		
3	Decision-Making Constructs in C		
4	Looping Constructs in C		
5	Functions in C		
6	Arrays in C		
7	Structures and Unions in C		
8	Pointers in C		
9	File Handling in C		
10	Static vs. Dynamic Memory Allocation		
11	Linked Lists in C		
12	Header Files in C		
13	Grading Rubric Sheets		