Course Title	Course Code	Credit Hours
Fundamentals of Programming	CS-114	2 – 1

Text Book:

- C++ How to Program, Harvey M. Deitel, Paul J. Deitel, 10th Edition, Prentice Hall. 2000

Reference Books:

- Object-Oriented Programming in C++, Robert Lafore, Fourth Edition, Sams Publishers,
- 2001
- Richard P. Halpern: C for Yourself, Oxford University Press, 1996 • B.J. Holmes: Programming with ANSI C, 1996, DP Publications
- Turbo C Programming for the PC Robert Lafore

Course Objectives:

The objective of the Fundamentals of Programming course for engineers is to equip students with the foundational coding skills and logical problem-solving abilities necessary to develop efficient and robust software solutions for engineering applications.

Course Outline:

- Basics of Computer Software and Hardware: Computers & Applications
- History of Computing
- Introduction to Hardware and Software, Peripheral Devices, Data Representation, Number Systems, Conversion Methods, ASCII / Unicode, Microprocessors, Memory, Storage Devices.
- Basic Computer Programming: Algorithms, Flowcharts & Pseudocode, Assignment Operators,
- If Selection Statement, If… Else Selection Statement, Nested Control Structures, switch Multiple-Selection Statement,
- Passing Arrays to Functions, Searching Arrays, Pointers, Library Functions and Header Files

Lab Practical:

Programs related to the above mentioned course outlines will be part of the lab.

Description	Percentage Weightage (%)
Assignments	05-10%
Quizzes	10-15%
Mid Semester Exams	30-40%
End Semester **ASSESSMENTS** Exam	40-50%