Course Code/Title: CS-110: Fundamentals of Computer Programming

Credit Hours

3-1

Pre-requisite(s): Course **Description:**

This is an introductory course on Programming Fundamentals for various computing and engineering disciplines where basic principles and techniques of problem solving are introduced through the use of a programming language. It includes introduction to basic concepts of computer programming in C++ language. Topics include Basic data types, Decision structures, Repetition structures, Arrays and strings, Procedures

and functions, files and structures

Outcomes: After completing this course a student will be able to:

> Become familiar with basic concepts involved in programming languages such as decision structures, loops, functions and file handling

Understand how to develop a structural program

Develop algorithms and write programs for real life problems

Become familiar with C++ Language

Understand a typical C++ program development environment

Course Contents: Introduction to C++ Programming and Data Types, Declarations,

Initialization and Operators, Conditional Statements, Control Flow,

Functions, Basic I/O, Arrays, Strings, Pointers, Bitwise Operators, Union,

File I/Os and structures.

Books:

Text books:

Object Oriented Programming in C++ by Robert Lafore

Reference books:

C++ How to Program by Dietel and Dietel