

Course 3C: Programming with C & C++

Unit	Details
I	Introduction and Control Structures: History of 'C' - Structure of C program – C character set, Tokens, Constants, Variables, Keywords, Identifiers – C data types - C operators - Standard I/O in C - Applying if and Switch Statements
II	Loops And Arrays: Use of While, Do While and For Loops - Use of Break and Continue Statements - Array Notation and Representation - Manipulating Array Elements - Using Multi Dimensional Arrays
III	Strings and Functions: Declaration and Initialization of String Variables - String Handling Functions -Defining Functions - Function Call - Call By Value, Call By Reference – Recursion
IV	Classes and Objects Introduction to OOP and its basic features - C++ program structure - Classes and objects - Friend Functions-Constructor – Types of constructors – Destructors.
V	Inheritance: Inheritance - Types of Inheritance -Types of derivation- Public – Private - Protected Hierarchical Inheritance - Multilevel Inheritance – Multiple Inheritance - Hybrid Inheritance

Learning Resources (Course 3C : Programming with C & C++)

References:

- (1) E. Balagurusamy "Object oriented programming with C++
- (2) R.Ravichandran "Programming with C++"
- (3) Mastering C by K R Venugopal and Sudeep R Prasad, McGraw Hill
- (4) Expert C Programming: Deep Secrets Kindle Edition [Peter van der Linden](#)
- (5) Let Us C [Yashavant Kanetkar](#)
- (6) The C++ Programming Language [Bjarne Stroustrup](#)
- (7) C++ Primer [Stanley B. Lippman](#), [Josée Lajoie](#), [Barbara E. Moo](#)

Online Resources:

<https://www.tutorialspoint.com/cprogramming/index.html>

<https://www.learn-c.org/>

<https://www.programiz.com/c-programming>

<https://www.w3schools.in/c-tutorial/>

<https://www.cprogramming.com/tutorial/c-tutorial.html>

<https://www.tutorialspoint.com/cplusplus/index.html>

<https://www.programiz.com/cpp-programming><http://www.cplusplus.com/doc/tutorial/>

<https://www.learn-cpp.org/>

<https://www.javatpoint.com/cpp-tutorial>

Course 3C – P : Programming with C & C++ Lab

Semester	CourseCode	CourseTitle	Hours	Credits
III	3C - P	Programming with C & C++ Lab	30	2

