

Module 1: Basics- (by Dr. Shiv Ram Dubey)

History, Basic UNIX Commands, Introduction to Programming , Procedural Programming , Programming Languages, Introduction to compiler , Linker, loader, Interpreter , Preprocessing Directives, Namespace Declaration, Overview of C

Module 2: Scope of variables- (by Dr. Snehasis Mukherjee)

Constants, Variables and Data types in C, Arrays, Character Arrays and Strings, Operators and Expressions, Operator Precedence, Managing Input and Output operation

Module 3: Loops- (by Dr. P. Viswanath)

Decision making and Branching: Conditions-if-else constructs, switch case, Ternary conditional statements, Decision making and looping : for, while, do while, break, continue

Module 4: Functions- (by Dr. Rajendra Prasath)

User defined function in C , Recursions

Module 5: Structures & Pointers-(by Dr. Subu Kandaswamy)

Structures, Unions, Enums, Pointer Concepts

Module 6: File Management in C-(by Dr. Balaji Raman)

Add on Concepts (if time permits): Introduction to Dynamic Memory Allocation: Allocation block of memory (Malloc), Allocation Multiple Blocks of Memory, Calloc - Releasing the used space: free, Altering the size of block : Realloc

Text Books:

- The C Programming Language. 2015 Edition. Brian Kernighan and Dennis Ritchie.
- C Programming, Herbert Schildt

Reference Books:

- C Programming Absolute Beginner's Guide, Greg Perry and Dean Miller
- Learn C the Hard Way, Zed A. Shaw
- Head First C, David Griffiths and Dawn Griffiths
- C Programming: A Modern Approach, (2nd Edition)' by K. N. King
- Let Us C. 15th Edition. Yashwant Kanetkar. BPB Publication

Course Content Weightage:

[1] Theory: 40%:[Mid1 10%, Mid2 10%, Majors 20%]

[2] Lab Exams: 20%: [Mid1 10%, Final 10%]

[3] Assignment: 30%

[4] Quizzes: 10%

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Bonus (if feasible)