

College of IT and Management Education

Lesson Plan

Sub : PROBLEM SOLVING AND PROGRAMMING USING C (MCA-101)

Branch : MCA

Semester : 1st Semester MCA (JULY-DEC, 2016)

Name of the Faculty : Sudhir Kumar Senapati

Total Credit Point : 4

Total Number of Classes: 40

Sl. No.	TOPIC PLANNED	SESSION
MODULE-1		10 Hours
1	Introduction to Computers, Basic Organization of a Computer	1
2	Number System, Conversion, Programming Basics	1
3	Algorithm, Flowchart, Structured Programming Approach	1
4	Structure of a C Program, Compiling, Linking ,Executing Programs	1
5	C Language Fundamentals, Character Set, Key Words	1
6	Identifiers, Data Types, Variables and Constants	1
7	Operators, Expressions, Type Conversions, Statements	1
8	Managing Console Input and Output Operations	1
9	Decision Making and Branching - If and Switch, Loop Structures	1
10	While and For, Unconditional Jumps - Continue, Break and Go To	1
MODULE -2		10 Hours
11	Concept, Declaration and Manipulation of Arrays, One dimensional	1
12	Multidimensional Array and their Applications	1
13	Concept of Strings, String Handling Functions, Array of Strings	1
14	Pointer Variable and its Importance, Dereferencing	1
15	Pointer Arithmetic and Scale Factor, Pointers and Arrays	1
16	Pointer and Strings, Array of Pointers, Pointers to Pointers	1
17	Designing Structured Programs, User Defined and Standard Functions	1
18	Formal and Actual Arguments,	1
19	Function Prototype Parameter Passing,	1
20	Functions Returning Multiple Values,	1
MODULE -3		10 Hours
21	Functions Returning Pointers	1
22	Pointers to Functions	1
23	Nesting of Functions, Recursion, Passing Arrays to Functions	1
24	Scope Rules, Storage Classes - Auto, Extern, Register and Static	1
25	Structures, Unions and Enumerations: Declaration	1
26	Structure as Function Parameters	1

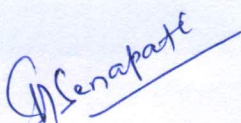
27	Structure Pointers	1
28	Unions	1
29	Enumerations	1
30	Doubt clearing classes	1
MODULE -4		10 Hours
31	Defining, Opening a File and Closing a File	1
32	Input/output Operations in Files	1
33	Random Access to Files	1
34	Error Handling	1
35	Command Line Arguments	1
36	Dynamic Memory Management	1
37	Pre-Processor Directives	1
38	Graphics using C programming	1
39	Doubt clearing classes	1
40	Doubt clearing classes	1

Text book:

1. PradipDey, ManasGhosh, "Programming in C", First Edition, Oxford University Press, 2011.
2. E. Balagurusamy, "Programming in ANSI C", 4th edition, 2007, McGraw-Hill Publication, New Delhi.
3. Brian W. Kernighan, Dennis Ritchie, "The C Programming Language" (2nd Edition), 1988, Prentice Hall.
4. Yashavant P. Kanetkar. "Let Us C", BPB Publications, 2011."

Reference books:

1. K.R. Venugopal, S.R. Prasad, "Mastering C", McGraw-Hill Education India.
2. Byron S Gottfried, "Programming with C", Schaum's Outlines, Second Edition, Tata McGrawHill, 2006.
3. Anita Goel and Ajay Mittal, "Computer Fundamentals and Programming in C", Dorling Kindersley(India) Pvt. Ltd., Pearson Education in South Asia, 2011.


Faculty


Course Coordinator


Principal