

## Lesson Plan

**Name of faculty: Ms. Charu Bhutani(Theory and Practical)**

**Discipline: B.Tech**

**Semester: 2nd**

**Subject: Fundamental of Computer Programming Using C**

**Lesson plan duration: 15 Weeks from (10<sup>th</sup> January,2018 to 25<sup>th</sup> April, 2018)**

**Work Load Weekly:**

Week	Theory		Practical Day	Topic
	Lecture Day	Topic		
1st	1	Evaluation of computers, , Introduction to Computer	1st	Write a program to find the largest of three numbers. (if-then-else)
	2	Commonly used CPUs, Input/Output devices		
	3	Input/Output ports and connectors		
2nd	4	Hardware organization of a computer	2nd	Write a program to find the largest of three numbers. (if-then-else)
	5	microprocessor, generations of microprocessors		
	6	Introduction to Operating system		
3rd	7	Functions of an Operating Systems	3 <sup>rd</sup>	Write a program to find the average mail height & average female heights in the class (input is in the form of sex code, height).
	8	Classification of Operating Systems		
	9	Basic introduction to DOS,		
4th	10	UNIX/LINUX OS	4th	Write a program to find roots of a quadratic equation using functions and switch statements
	11	Windows XP		
	12	Machine Language, Assembly Languages, Low level languages, High level Languages,		
5th	13	Types of high level languages,	5th	Write a program using arrays to find the largest and second largest numbers out of given 50 numbers.
	14	Compiler, Interpreter, Assembler, Loader, Linker,		
	15	Relationship between Compiler, Interpreter, Loader and Linker		
6th	16	Data Communication, modulation	6th	Write a program to multiply two matrices.
	17	Network devices, LAN, LAN topologies, WAN, OSI		
	18	Reference model, Introduction to Internet and protocols		
7th	19	TCP/IP Reference model,	7th	Write a program to read a string and write it in reverse order.
	20	Backbone network,		
	21	Network connecting devices,		

8th	22	Hypertext documents, HTTP, DNS, Network Security	8th	Write a program to concatenate two strings of different lengths
	23	<b>An Overview of C:</b> Constants, Variables and Keywords		
	24	Data types		
9th	25	Operators and Expressions, managing I/O operations,	9th	Represent a deck of playing cards using arrays
	26	Decision Making and Branching.		
	27	Decision Making and looping,		
10th	28	Arrays, Character Arrays	10th	Write a program to check that the input string is a palindrome or not.
	29	Strings		
	30	User Defined Functions		
11th	31	Defining structure, declaring variables,	11th	Programs on file handling
	32	Accessing structure members, structure initialization		
	33	Copying and comparing structures variables		
12th	34	Operations on individual members,	12th	Program to Find out reverse of a string
	35	Array of structure, structure with structure,		
	36	Unions, size of structure		
13th	37	Introduction, Understanding Pointers, Accessing the address of a variable,	13th	Program to find out factorial of a given number
	38	Declaring Pointer Variables, Initialization of Pointer Variables, Accessing a variable through its pointer, Chain of Pointers,		
	39	Expressions, Pointer Increments and Scale Factors, pointers and Arrays, Pointer and Character		
14th	40	Strings, Arrays of Pointers, Pointers as Function Arguments, Functions Returning Pointers, Pointers to Functions	14th	Program to Check Armstrong Number
	41	Introduction, Dynamic memory allocation, allocating a block of memory		
	42	Malloc, allocating multiple blocks of memory: Calloc. Releasing the used space: Free, Altering the size of block: Realloc		
15th	43	Defining and opening file, closing file, I/O operation on files	15th	Program to Convert Binary Number to Decimal and vice-versa
	44	Error handling during I/O operations		
	45	Random Access to files and command line arguments		