

## Lesson Plan

**Name of Faculty** : Krishan Kumar  
**Discipline** : Computer Engg.  
**Semester** : 3<sup>rd</sup>  
**Subject** : Programming in C  
**Lesson Plan Duration** : 15 weeks

**Workload (Lecture / Practical) per week (in hours):** Lectures-03, Practical-08

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	Steps in development of a program	1 & 2	Programming exercises on executing and editing a C program
	2 <sup>nd</sup>	Algorithm development,		
	3 <sup>rd</sup>	Flow charts		
2 <sup>nd</sup>	4 <sup>th</sup>	Program Debugging I/O statements	3 & 4	Programming exercises on defining variables and assigning values to variables.
	5 <sup>th</sup>	Constants, variables and data types		
	6 <sup>th</sup>	Operators and Expressions		
3 <sup>rd</sup>	7 <sup>th</sup>	Unformatted and Formatted IOS	5 & 6	Programming exercises on arithmetic and relational operators.
	8 <sup>th</sup>	Unformatted and Formatted IOS		
	9 <sup>th</sup>	Data Type Casting		
4 <sup>th</sup>	10 <sup>th</sup>	Decision making with IF – statement	7 & 8	Programming exercises on arithmetic expressions and their evaluation.
	11 <sup>th</sup>	IF – Else and Nested IF		
	12 <sup>th</sup>	While and do-while, for loop		
5 <sup>th</sup>	13 <sup>th</sup>	While and do-while, for loop	9 & 10	Programming exercises on formatting input/output using printf and scanf and their return type values
	14 <sup>th</sup>	While and do-while, for loop		
	15 <sup>th</sup>	Break. Continue, goto		
6 <sup>th</sup>	16 <sup>th</sup>	switch statements	11 & 12	Programming exercises using if statement. Programming exercises using if –Else.
	17 <sup>th</sup>	Introduction to pointers		
	18 <sup>th</sup>	Address operator and pointers		
7 <sup>th</sup>	19 <sup>th</sup>	Declaring and initializing pointers	13 & 14	Programming exercises on switch statement
	20 <sup>th</sup>	Single pointer,		
	21 <sup>th</sup>	Introduction to functions Function Declaration Standard functions		

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	Lecture day	Topic (including assignment / test)	Practical Day	Topic
8 <sup>th</sup>	22 <sup>nd</sup>	Parameter Passing	15 & 16	Programming exercises on do – while, statement.
	23 <sup>rd</sup>	Call - by value/reference		
	24 <sup>th</sup>	Global and Local Variables		
9 <sup>th</sup>	25 <sup>th</sup>	Introduction to array,	17 & 18	Programming exercises on for – statement.
	26 <sup>th</sup>	Array Declaration, Length of array		
	27 <sup>th</sup>	Single Dimensional Array		
10 <sup>th</sup>	28 <sup>th</sup>	Multidimensional Array.	19 & 20	Simple programs using pointers.
	29 <sup>th</sup>	Array of characters		
	30 <sup>th</sup>	Introduction of Strings		
11 <sup>th</sup>	31 <sup>st</sup>	String declaration and definition	21 & 22	Programs on one-dimensional array. Programs on two-dimensional array.
	32 <sup>nd</sup>	String Related function strlen		
	33 <sup>rd</sup>	strcpy, strcmp		
12 <sup>th</sup>	34 <sup>th</sup>	Passing an array to function	23 & 24	(i) Programs for putting two strings together. (ii) Programs for comparing two strings.
	35 <sup>th</sup>	Pointers to an array		
	36 <sup>th</sup>	Pointers to strings		
13 <sup>th</sup>	37 <sup>th</sup>	Declaration of structures	25 & 26	Simple programs using functions
	38 <sup>th</sup>	Accessing structure members		
	39 <sup>th</sup>	Structure Initialization		
14 <sup>th</sup>	40 <sup>th</sup>	Pointer to Structure	27 & 28	Simple programs using structures. Simple programs using union.
	41 <sup>st</sup>	Unions		
	42 <sup>nd</sup>	Opening and closing of files		
15 <sup>th</sup>	43 <sup>rd</sup>	Modes of Accessing Files	29 & 30	Program on Reading & writing data to a file.
	44 <sup>th</sup>	Reading the File		
	45 <sup>th</sup>	writing in the File		

