

# KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

(Deemed to be University)

## SCHOOL OF COMPUTER ENGINEERING

SPRING SEMESTER 2019

**Course Code: CS-1093**

**Course title: Computer Programming Lab**

### DATE WISE(WEEKLY) LESSON PLAN

<b>Calendar Week (Monday to Sunday)</b>	<b>LAB Days</b>	<b>Module#</b>	<b>Theory</b>	<b>Lab Manual Reference</b>
Dec 1 <sup>st</sup> week	1	<b>1. Introduction</b>	Introduction to computer fundamentals, memory	LAB#1: Linux commands
Dec 2 <sup>nd</sup> week	2,3	<b>1. Introduction</b>	Introduction to programming languages  Number system representation (Binary-decimal)	<ul style="list-style-type: none"><li>● Number system problems</li><li>● Small formula based problems</li></ul>
Dec 3 <sup>rd</sup> week	4	<b>1. Introduction</b> <b>2. Variables, constants, Data types, Operators</b>	Introduction to Flowchart & Algorithm  Data types  Arithmetic operators	LAB#2 : Simple Input output statements, simple mathematical operations

Winter Vacation				
Jan 2 <sup>nd</sup> week	5,6	<b>2.Variables, constants, Data types, Operators</b>	Operators and Expressions, Type Casting	LAB#2: Operators and Expressions
Jan 3 <sup>rd</sup> week	7,8	<b>3.Control statements</b>	Branching Statements	LAB#3 : If - else, Switch cases
Jan 4 <sup>th</sup> Week	9,10	<b>3.Control statements</b>	Control Statements	LAB#4 :Loop - while, do-while, for loop
Jan 5 <sup>th</sup> Week	11,12	<b>3.Control statements</b>	More programs on branching and looping	
Feb 1 <sup>st</sup> week	13, 14	<b>4.Array</b>	Introduction to Array (1D)	LAB#5: Array (1D) programs
Feb 2 <sup>nd</sup> week	15, 16	<b>4.Array</b>	2D array. More programs on array	LAB#5: Array programs
Feb 3 <sup>rd</sup> week	17,18	<b>5.Functions</b>	Declaring, defining and calling functions.Parameter Passing – call-by-value and call-by-reference,	LAB#6: Functions
	<b>MID SEMESTER EXAMINATION : 24. 02. 2020 – 29.02.2020</b>			
March 1 <sup>st</sup> week	19, 20	<b>5.Functions</b>	Recursion More practice on Functions	LAB#6: Functions
March 2 <sup>nd</sup> week	21,22	<b>6. Storage class</b> <b>7. Character Arrays and Strings</b>	Storage class String manipulations	LAB#7: Strings
March 3 <sup>rd</sup> week	23,24	<b>8.Pointer</b>	Pointer variable, Pointer Arithmetic, Passing parameters by reference, Pointer to pointer, Pointer to functions	LAB#8:Pointer
March 4 <sup>th</sup>	25,26	<b>10.Dynamic</b>	Memory allocation functions (malloc,	LAB#8:Pointer

week		<b>Memory Allocation</b> <b>9.User Defined Data Types – Structures and Unions</b>	calloc, realloc, etc.) Memory de-allocation function (free)  Structure: definition, structure variable, creation, initialization and assignment  Pointers to structures, Union and their uses, Enum and their uses	LAB#9: Structure and union programs
March 5 <sup>th</sup> week/ April 1 <sup>st</sup> week	27	<b>11.File Handling</b>	File operations - opening, closing, reading, writing etc.  Command line arguments  Bitwise operators  Macros	<b>LAB#10</b> : File Handling in C
<b>April 2<sup>nd</sup> week</b> <b>(5 to 10 Apr)</b>	<b>Sessional</b>  <b>END SEMESTER EXAMINATION : 16.4.2020 - 30.4.2020</b>			