

# Bhoj Reddy Engineering College for Women: Hyderabad

Department of Information and Technology

Lesson plan of faculty member for the academic year 2016–17

Class: I B Tech

Branch-Section: EEE

Semester: II

Subject: Computer Programming in C

Lectures per week: 4

Lecture Number	Topics to be covered	Date (s)
<b>UNIT – I: Introduction to Computers</b>		
1	Introduction to Computers – Computer Systems	04-01-2017
2	Computing Environments, Computer Languages	05-01-2017
3	Creating and running programs, Program Development	06-01-2017
4	algorithms and flowcharts	07-01-2017
5	Number systems-Binary, Decimal, Hexadecimal and Conversions	11-01-2017 12-01-2017
6	Storing integers and real numbers	18-01-2017
7	Introduction to C Language – Background,	19-01-2017
8	C Programs, Identifiers, Types, Variables	20-01-2017
9	Input / Output, Operators(Arithmetic, relational, logical, bitwise etc.)	21-01-2017 25-01-2017
10	Constants, Expressions, Precedence and Associativity	27-01-2017
11	Expression Evaluation, Type conversions,	28-01-2017
12	Statements- Selection Statements(making decisions) – if and switch statements	01-02-2017
13	Repetition statements ( loops)-while, for, do-while statements, Loop examples, other statements related to looping – break, continue, goto, Simple C Program examples	02-02-2017 03-02-2017 04-02-2017
<b>UNIT-II: Functions</b>		
14	Functions-Designing Structured Programs, Functions, user defined functions	08-02-2017
15	inter function communication, Standard functions, Scope	09-02-2017
16	Storage classes-auto, register, static, extern, scope rules, type qualifiers	10-02-2017 11-02-2017
17	recursion- recursive functions	15-02-2017
18	Limitations of recursion, example C programs.	16-02-2017
19	Arrays – Concepts using arrays in C,	17-02-2017
20	inter function communication, array applications-	18-02-2017
21	linear search, binary search	22-02-2017
22	bubble sort, two – dimensional arrays,.	23-02-2017
23	multidimensional arrays	25-02-2017
24	C program examples	01-03-2017
<b>UNIT-III: Pointers</b>		
25	Pointers – Introduction (Basic Concepts)	02-03-2017
26	Pointers for inter function communication,	03-03-2017
27	pointers to pointers, compatibility, Pointer Applications- Arrays and Pointers	04-03-2017
28	Pointer Arithmetic and arrays, Passing an array to a	09-03-2017

	function	
29	memory allocation functions, array of pointers	10-03-2017
30	programming applications, pointers to void,	11-03-2017
31	pointers to functions.	15-03-2017
32	Strings – Concepts, C Strings	16-03-2017
33	String Input / Output functions, arrays of strings,	17-03-2017
34	string manipulation functions, string / data conversion, C program examples.	22-03-2017 23-03-2017
<b>UNIT-IV: Structure and Union</b>		
35	Enumerated, Structure and Union Types – The Type Definition (typedef)	24-03-2017
36	Enumerated types, Structures –Declaration, initialization	25-03-2017
37	accessing structures, operations on structures	30-03-2017
38	Complex structures-Nested structures, structures containing arrays, structures containing pointers	31-03-2017 01-04-2017
39	arrays of structures, structures and functions	06-04-2017
40	Passing structures through pointers, self referential structures	07-04-2017,08-04-2017
41	unions, bit fields, C programming examples	12-04-2017
42	command–line arguments, Preprocessor commands.	13-04-2017 15-04-2017
<b>UNIT-V: FILES</b>		
43	Input and Output – Concept of a file	19-04-2017
44	streams, text files and binary files,	20-04-2017
45	Differences between text and binary files	21-04-2017
46	State of a file, Opening and Closing files	22-04-2017
47	file input / output functions (standard library input / output functions for files)	26-04-2017 27-04-2017
48	file status functions (error handling)	28-04-2017
49	Positioning functions (fseek ,rewind and ftell)	29-04-2017
50	C program examples	03-05-2017,04-05-2017
51	File Related programs	05-05-2017,06-05-2017

**Text Books:**

1. Computer Science: A Structured Programming Approach Using C, B. A. Forouzan and R. F. Gilberg, Third Edition, Cengage Learning.
2. Programming in C. P. Dey and M Ghosh , Second Edition, Oxford University Press.  
Name and signature of the faculty: Prof Yedukondalu K

**Reference Books:**

1. The C Programming Language, B.W. Kernighan and Dennis M. Ritchie, Second Edition, Pearson education.
2. Programming with C, B. Gottfried, 3<sup>rd</sup> edition, Schaum's outlines, McGraw Hill Education (India) Pvt Ltd.
3. C From Theory to Practice, G S. Tselikis and N D. Tselikas, CRC Press.
4. Basic computation and Programming with C, Subrata Saha and S. Mukherjee, Cambridge University Press.

