

# Bhoj Reddy Engineering College for Women: Hyderabad

## Department of Computer Science and Engineering

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

Class: I B Tech

Branch-Section: ECE-A

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, C Language</b>		
1	Introduction - Computer Systems	03 January 2017
2	Computer Systems	06 January 2017
3	Computing Environments	07 January 2017
4	Computer Languages	09 January 2017
5	Creating and running programs	10 January 2017
6	Program Development, Algorithms and flowcharts	16 January 2017
7	Number systems-Binary, Decimal, Hexadecimal and Conversions	17 January 2017
8	Storing integers and real numbers	20 January 2017
9	Introduction to C Language – Background	21 January 2017
10	C Programs, Identifiers, Types, Variables	23 January 2017
11	Constants, Input / Output, Operators	24 January 2017
12	Expressions, Precedence and Associativity	27 January 2017
13	Expression Evaluation, Type conversions	28 January 2017
14	Statements- Selection Statements(making decisions) – if and switch statements	30 January 2017
15	Repetition statements ( loops)-while, for, do-while statements	31 January 2017
16	Loop examples, other statements related to looping – break, continue, go to, Simple C Program examples	03 February 2017
<b>UNIT-II: Functions, Arrays</b>		
17	Introduction - Functions	04 February 2017
18	Designing Structured Programs, User defined functions	06 February 2017
19	Inter function communication, Standard functions	07 February 2017
20	Scope, Storage classes-auto, register, static, extern, scope rules	10 February 2017
21	Type qualifiers, recursion- recursive functions, Limitations of recursion	11 February 2017
22	Example C programs, Preprocessor commands	13 February 2017
23	Arrays – Concepts, using arrays in C	14 February 2017
24	Inter function communication	17 February 2017
25	Array applications — linear search	18 February 2017
26	Binary search and bubble sort	20 February 2017
27	Two, Multi dimensional arrays, C program examples	21 February 2017
<b>UNIT-III: Pointers, Strings</b>		
28	Pointers – Introduction (Basic Concepts)	25 February 2017
29	Pointers for inter function communication, Pointers to pointers	27 February 2017
30	Compatibility, Pointer Applications-Arrays and Pointers	28 February 2017
31	Pointer Arithmetic and arrays	03 March 2017
32	Passing an array to a function	04 March 2017
33	Memory allocation functions	10 March 2017
34	Array of pointers, programming applications	11 March 2017
35	Pointers to void, Pointers to functions	13 March 2017
36	Strings – Concepts, C Strings	14 March 2017
37	String Input / Output functions	17 March 2017
38	Arrays of strings	18 March 2017
39	String manipulation functions	20 March 2017
40	String / Data conversion	21 March 2017
41	C program examples.	24 March 2017
<b>UNIT-IV: Enumerated, Structure and Union Types</b>		
42	The Type Definition (typedef)	25 March 2017

43	Enumerated types	27 March 2017
44	Structures –Declaration, initialization	28 March 2017
45	Accessing structures, operations on structures	31 March 2017
46	Complex structures-Nested structures	01 April 2017
47	Structures containing arrays	03 April 2017
48	Structures containing pointers	04 April 2017
49	Arrays of structures, structures and functions	07 April 2017
50	Passing structures through pointers	08 April 2017
51	Self-referential structures	10 April 2017
52	Unions, bit fields,	11 April 2017
53	C programming examples	15 April 2017
54	Command–line arguments, Pre-processor commands	17 April 2017
<b>UNIT-V: Input and Output</b>		
55	Concept of a file, streams	18 April 2017
56	Text files	21 April 2017
57	Binary files	22 April 2017
58	Differences between text and binary files	24 April 2017
59	State of a file	25 April 2017
60	Opening and Closing files	28 April 2017
61	File input functions	29 April 2017
62	File output functions	01 May 2017
63	File status functions (error handling)	02 May 2017
64	Positioning functions (fseek ,rewind and ftell)	05 May 2017
65	C program examples	06 May 2017
66	Revision	08 May 2017
67	Revision	09 May 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.

#### **Reference Books:**

1. **The C Programming Language**, B.W. Kernighan and Dennis M. Ritchie, Second Edition, Pearson education.
2. **Programming with C**, B. Gottfried, 3rd 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.

Name and signature of the faculty: **Ms N Kiranmai**

Name and signature of Head of the Department: **N Satyanandam (HOD CSE)**  
**N Shribala (HOD ECE)**