



C. U. Shah University, Wadhwan City

Faculty of Computer Science

Name of Program: Bachelor of Science (Information Technology)
(B.Sc.IT)

Semester : I

W.e.f. June – 2016

Teaching & Evaluation Scheme

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
			Th	Tu	Pr	Total		Theory				Practical			Total Marks
								Sessional Exam		University Exam		Internal		Uni.	
								Marks	Hrs	Marks	Hrs	Pr	TW	Pr	
4	4CS01IPC2	Programming Basics using C Language	4	-	-	4	4	30	1.5	70	3	-	-	-	100

Objectives: At the end of the syllabus, Student can develop a various types of program using c language.

Pre-requisites: Fundamental knowledge of computer

Course Outline:

Ch. No	Chapter Name	Course Contents	Lect. Hours
1	Introduction of Programming Languages:	<ul style="list-style-type: none"> ➤ Introduction to Machine, Assembly and Higher Level language ➤ Limitation and features ➤ Pre programming tools <ul style="list-style-type: none"> ○ Flowchart ○ Algorithm ○ Writing algorithms and development of flowcharts for the given list of problems. 	7
2	C language overview:	<ul style="list-style-type: none"> ➤ History of C ➤ Basic Structure of C ➤ Executing C program ➤ Character set & C Tokens ➤ Identifiers & Keywords ➤ Data Types ➤ Constants and Variables ➤ Comment 	8
3	Operator & Expression:	<ul style="list-style-type: none"> ➤ Introduction ➤ Types of operators ➤ Arithmetic expression ➤ Evaluation of expression ➤ Type conversion in expression ➤ Operator Precedence and associativity 	10
4	Decision Making Structure	<ul style="list-style-type: none"> ○ If statement ○ If-else statement ○ Nested If-else statement ○ Switch statement 	5

5	Loop Control Structure and Jumping statement	<ul style="list-style-type: none"> ○ While loop ○ Do-While loop ○ For loop ○ Nested loop Jumping Statements <ul style="list-style-type: none"> ○ break, continue, goto, exit 	7
6	Header files and library functions:	<stdio.h> : print(), scanf(), fflush(), gets(), puts() <conio.h>: getch(), getche(), getchar(), clrscr(), gotoxy(), textcolor(), textbackground(), cprintf() <math.h>: abs(), exp(), sqrt(), log(), ceil(), floor(), pow(), fmod(), fabs() <string.h>: strlen(), strcpy(), strcmp(), strcat(), strlwr(),strupr(),strrev() <ctype.h> : isalpha(), isdigit(), isalnum(), isspace(), isupper(), islower(), isprint(), toupper(), tolower()	5
7	Array	<ul style="list-style-type: none"> ➤ Introduction <ul style="list-style-type: none"> ○ One dimensional array ○ Two dimensional array ○ Multi dimensional array ○ Dynamic array 	5
8	String	<ul style="list-style-type: none"> ➤ Introduction ➤ Declaring and initializing string variable ➤ Writing string to screen ➤ String Operations 	4
9	User Defined Function	<ul style="list-style-type: none"> ➤ Introduction ➤ Elements of User Defined Function ➤ Category of UDF <ul style="list-style-type: none"> ○ Function with no argument and no return value ○ Function with argument and no return value ○ Function with argument and return value ○ Function with no argument but return value ➤ Nesting of Function ➤ Recursion ➤ Storage class 	4
TOTAL			55

Reference Books:

- (1) Programming in Ansi C, by E Balagurusamy, Publisher: McGraw Hill Education India, ISBN-13: 978-1259004612
- (2) C: The Complete Reference, by Herbert Schildt, Publisher: McGraw Hill Education (India), ISBN-13: 978-0070411838
- (3) Let Us C, by Yashavant Kanetkar, Publisher: BPB, ISBN-13: 978-8183331630