

GANPAT UNIVERSITY									
FACULTY OF ENGINEERING AND TECHNOLOGY (DIPLOMA PROGRAMMES)									
Programme	Diploma Engineering				Branch/Spec.	Computer Engineering / Information Technology			
Semester	I				Version	1.0.0.0			
Effective from Academic Year		2018-19			Effective for the batch Admitted in			June 2018	
Subject code	1ES106		Subject Name		Computer Programming - 1				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	3	0	2	0	5	Theory	40	60	100
Hours	3	0	4	0	7	Practical	60	40	100
Re-requisites:									
None									
Learning Outcome:									
<ul style="list-style-type: none"> • Student can able to design simple algorithm and Flowcharts. • Student can learn basic of Programming using C Language. 									
Theory syllabus									
Unit	Content								Hrs
1	Algorithm and Flowchart Basic of Algorithm, Structure of Algorithm, Flowcharts, Definition, Importance of Flowcharts, Flowchart Symbols, Flowchart structure								5
2	Introduction to Programming Types of Programming language, History of C, Importance of C, Applications, Basic Structure of C Programming, Execution of C Programs, printf and scanf, Comments								5
3	Constants, Variables and Data Types Character Set, C Tokens, Keywords and Identifiers, Constants, Variables, Data Types Declaration of Variables, Storage Class, Assigning Values to Variables, Constant variable								8
4	Operators and Expression Introduction to Operators, Arithmetic Operators, Relational Operator, Logical Operators, Assignment Operator, Increment and Decrement Operators, Conditional Operators, Bitwise Operators, Comma Operator, sizeof() operator, Arithmetic Expression and its evaluations, Operator Precedence, Type Conversions: Implicit, Explicit								8
5	Formatted IO Reading a character, formatted Input, Formatted Output								5
6	Decision Making with Branching and Looping simple if, if...else, nested if...else, else...if ladder, switch statements, Ternary operator goto, While, do...while, for, break ,continue								9
7	Arrays Introduction, One Dimensional Arrays, Declaring of one Dimensional arrays Initialization								5
Practical content									
Students need to write algorithm and flowcharts for each problem.									
<ol style="list-style-type: none"> 1. Draw Flow Chart and write algorithm for at least four problems. 2. Write minimum 6 programs using Constants, Variables 3. Write minimum 3 program for arithmetic expression. 4. Write programs to understand Data types. 5. Write programs to understand Type modifiers. 6. Write programs to understand Type conversion. 7. Write a programs to perform formatted output. 8. Write minimum 5 program for each types of operator. 9. Write programs using If, If-else, If-else-if and Nested If statements. 									

10. Write programs using break, continue, goto and switch statements.
11. Write programs to understand simple for loop and nested loops.
12. Write programs using While Loop and do-while loop
13. Write programs on arrays.

Text Books	
1	Programming in ANSI C by Balagurusami (McGraw Hill)
Reference Books	
1	Let Us C by YashavantKanetkar (BPB Publications)