



Tolani College of Commerce (Autonomous)

तोलानी वाणिज्य महाविद्यालय (स्वायत्त)

(Sponsored and Managed by Tolani Education Society, Mumbai - 400 021)

(Recognised Linguistic (Sindhi) Minority Institution, Affiliated to University of Mumbai)

Re-Accredited (3rd Cycle) by N.A.A.C. with 'A' Grade (CGPA 3.03)

Knowledge is Supreme

150-151, SHER-E-PUNJAB SOCIETY,
GURU GOBIND SINGH ROAD,
ANDHERI (EAST), MUMBAI-400 093.

Tel. : (022) 6153 5455

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E-mail : tcc@tolani.edu

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Name of the Department/ Programme	Bachelor of Science in Information Technology					
Name of the Course	Major: Imperative Programming					
Semester	I					
Number of Credits	2					
Number of Lectures	30					
Lecture Duration	60 Minutes					
Total Marks:	CE	20	SEE	30	Total	50

Learning Objectives of the Course

Sr.No.	Objectives
LOC1	To enable students to know the fundamentals of C programming language and its conventions
LOC2	To develop the basic programming skills of using looping statements, functions and conditional statements for better programming
LOC3	Interpret and apply the programming logic to solve problems.

Learning Outcomes of the Course

Sr. No.	Outcomes
CO1	Able to learn the simple program logic, structure, compilation and execution of a program
CO2	Understand the working of functions, Arrays and pointers in developing a program
CO3	Apply basic programming skills strongly to enhance knowledge about Computer based programming.



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Syllabus in Detail

Semester I

Unit	Details	Lectures
I	Introduction: Types of Programming languages, History, features and application. Simple program logic, program development cycle, pseudocode statements and flowchart symbols Fundamentals: Structure of a program. Compilation and Execution of a Program, identifiers and keywords, data types, constants, variables and arrays, declarations, expressions, statements,	10
II	Operators and Expressions: Arithmetic operators, unary operators, relational and logical operators, assignment operators, assignment operators, the conditional operator Conditional Statements and Loops: If Statement, If-Else Statement, Loops: While Loop, Do While, For Loop. Nested Loops, Infinite Loops, Switch Statement Manipulating Strings: Declaring and initializing String variables, Character and string handling functions.	10
III	Functions: Overview, defining a function, accessing a function, passing arguments to a function, recursion, standard library of c functions, prototype of a function: return type, function call, passing arguments to a function: call by reference, call by value. Arrays: Definition, processing, passing arrays to functions, multidimensional arrays, arrays and strings. Pointers: Fundamentals, declarations, Pointers Address Operators, Pointer Type Declaration, Pointer Assignment, Pointer Initialization.	10

References

- 1) "C" Programming" by Brian W. Kernighan and Denis M. Ritchie. PHI Second Edition
- 2) Let us C by Yashwant P. Kanetkar, BPB Publication