



VIKRAMA SIMHAPURI UNIVERSITY::NELLORE

**Common Framework of CBCS for Colleges in Andhra Pradesh
(A.P.State of Council of Higher Education)**

SYLLABUS OF

REVISED SYLLABUS OF B.Sc. (COMPUTER SCIENCE/ INFORMATION TECHNOLOGY) UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-2021

PROGRAMME: THREE-YEAR B.Sc.

(B.Sc. Computer Science/ Information Technology (IT))

*(With Learning Outcomes, Unit-wise Syllabus, References, Co-curricular
Activities & Model Q.P. for Fifteen Courses of 1, 2, 3 & 4 Semesters)*

(with effect from 2020-21 Academic Year)

Structure of Computer Science /Information Technology (IT)

Programme: B.Sc. with Computer Science as one of the Core Subjects.

Discipline: Computer Science

Year	Semester	Paper Code	Subject	Hrs. per Week	Credits	IA	ES	Total
First Year	I	C1	Problem Solving in C	4	4	25	75	100
	I	C1-P	Problem Solving in C Lab	2	1		50	50
	II	C2	Data Structures using C	4	4	25	75	100
	II	C2-P	Data Structures using C Lab	2	1		50	50
Second Year	III	C3	Database Management System	4	4	25	75	100
	III	C3-P	Database Management System Lab	2	1		50	50
	IV	C4	Object Oriented Programming using Java	4	4	25	75	100
	IV	C4-P	Object Oriented Programming using Java Lab	2	1		50	50
	IV	C5	Operating Systems	4	4	25	75	100
	IV	C5-P	Operating Systems Lab using C/Java	2	1		50	50

U. Senarath

Semester	Course Code	Course Title	Hours	Credits
I	C1	PROBLEM SOLVING IN C	60	4

Objectives:

This course aims to provide exposure to problem-solving through programming. It introduces the concepts of the C Programming language.

Course Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Understand the evolution and functionality of a Digital Computer.
2. Apply logical skills to analyse a given problem
3. Develop an algorithm for solving a given problem.
4. Understand 'C' language constructs like Iterative statements, Array processing, Pointers, etc.
5. Apply 'C' language constructs to the algorithms to write a 'C' language program.

UNIT- I

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Language.

UNIT- II

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs – Using Comments –

U. Genarab