

# COURSE OUTCOMES B.SC. (COMPUTER SCIENCE)

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**B. Sc.-I (Sem-I)**

**Paper: DSC-11A**

## **PROBLEM SOLVING USING COMPUTERS**

CO1: Explore algorithmic approaches to problem solving.

CO2: Develop modular programs using control structures and arrays in 'C'

**B.Sc.-I (Sem-I)**

**Paper: DSC-12A**

## **Database Management System**

CO1: Understand basic concepts of database and its Architecture.

CO2: Describe ERD and its Components.

**B. Sc.-I (Sem – II)**

**Paper: DSC-11B**

## **Programming Skills Using 'C'**

CO1: Ability to design and develop Computer programs, analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.

CO2: Develop confidence for self education and ability for life-long learning needed for computer language.

**B.Sc. I (Sem-II)**

**Paper: DSC-12B**

## **Relational Database Management System**

CO1: Explain various commands in data languages with example.

CO2: Understand concept of normalization and its types.

**B.Sc.-II (Sem-III)**  
**Course Code: DSC-11C**  
**Paper –V: PHP and MySQL**

CO1: To understand basic concept of PHP.

CO2: To Learn how to developing applications in PHP using MySQL.

CO3: To learn and develop various PHP technology applications that definitely meets the current industry needs.

**B.Sc. –II (Sem– III)**  
**Course Code: DSC-12C**  
**Paper –VI: Object Oriented Programming Using C++**

CO1: To understand how C++ improves C with object oriented features

CO2: To learn syntax and semantics of C++ programming language

CO3: To learn how to write inline functions for efficiency and performance.

CO4: To learn how to overload functions and operators in C++.

CO5: To learn how to design C++ classes for code reuse.

CO6: To learn how inheritance promote code reuse in C++.

CO7: To learn how inheritance and virtual functions implement dynamic binding with polymorphism.

**B.Sc.-II (Sem-IV)**  
**Course Code:DSC-11D**  
**Paper –VII: Cyber Security Essentials-I**

CO1. Understand concept of information security management.

CO2. Learn different access controls methods.

CO3. Understand wireless network security.

CO4. Learn cyber security laws and importance of security audit.

**B.Sc. –II (Sem– IV)**  
**Course Code:DSC-12D**  
**Paper –VIII:Data Structure Using C++**

CO1: Understand the basic concepts such as Abstract Data Types, Linear and Non Linear Data structures.

CO2: Ability to choose appropriate data structures to represent data items in real world problems.

CO3: Ability to analyze the time and space complexities of algorithms.

CO4: Ability to design programs using a variety of data structures such as array, stacks, queues, linked list

CO5: Able to analyze and implement various kinds of searching and sorting techniques.

**B.Sc. III (Sem-V)**  
**Course Code: DSE-21E**  
**Paper –IX: Core Java**

- CO1: Understand basic concepts and features of Java.  
CO2: Understand Object oriented programming concepts.  
CO3: Understand concept of Multithreading and Exception Handling

**B.Sc.-III (Sem-V)**  
**Course Code: DSE-22E**  
**Paper –X:C# Programming**

- CO1: Overview of C#.NET with features  
CO2: Understanding the Object Oriented Programming concepts  
CO3: Overview of different form controls and IDE

**B.Sc.-III (Sem-V)**  
**CourseCode: DSE-23E**  
**Paper – XI: LINUX Part I**

- CO1: Upon completion of this course, students should have a good working knowledge of Linux.  
CO2: Allowing them to easily use any Linux distribution.  
CO3: This course shall help student to learn advanced subjects in computer science practically.

**B.Sc.-III (Sem-V)**  
**Course Code: DSE-24E**  
**Paper – XII:Python Part I**

- CO1: To understand why Python is a useful scripting language for developers  
CO2: To learn how to write loops and decision statements in Python  
CO3: To learn how to use lists, tuples, and dictionaries in Python programs

**B.Sc.-III (Sem-VI)**  
**CourseCode:DSE-21F**  
**Paper– XIV:Advanced Java**

CO1: To learn swing and database programming using Java

CO2: understand server-side programming through servlets.

CO3: To study web development concept using Servlet and JSP.

**B.Sc.-III (Sem-VI)**  
**CourseCode:DSE-22F**  
**Paper– XIV: ASP .NET**

CO1: Understanding the Client-side and Server-side programming

CO2: Apply validation and state management for interactive website development

CO3: Design and develop dynamic web application using ADO.Net

**B.Sc.-III (Sem-VI)**  
**CourseCode:DSE-23F**  
**Paper - XV: Linux Part II**

CO1: This course covers design principles of Linux Operating System Memory management.

CO2: Structure of File system and virtual file system is also elaborated.

CO3: This course contains details of shell programming and introduces System administration

**B.Sc.-III (Sem-VI)**  
**CourseCode:DSE-24F**  
**Paper - XVI: Python Part II**

CO1: To learn how to write functions and pass arguments in Python

CO2: To learn how to build and package Python modules for reusability

CO3: To learn how to use exception handling in Python applications for error handling