B.Sc. Computer Science (Optional)

Course Outcomes:

Course Code	Course title	Course Outcomes
B.Sc. Computer Science (Optional) Part-III Semester-V		
DSE-21E	Core Java	1. Object oriented programming concepts using Java. 2. Knowledge of input, its processing and getting suitable output. 3.Understand, design, implement and evaluate classes and applets 4. Understand concept of Multi-programming and Exception Handling
DSE-22E	C# Programming	1. Learn practical aspects C#.NET framework. 2. Introduce the students to the basics of OOPs and windows application program.
DSE-23E	Linux Part-I	1. Upon completion of this course, students should have a good working knowledge of Linux. 2. Allowing them to easily use any Linux distribution. 3. This course shall help student to learn advanced subjects in computer science practically.
DSE -224E	Python Part-I	1. To understand why Python is a useful scripting language for developers 2. To learn how to write loops and decision statements in Python 3. To learn how to use lists, tuples, and dictionaries in Python programs
B.Sc. Computer Science (Optional) Part-III Semester-VI		
DSE-21F	Advanced Java	.1 The student will be able to develop distributed business applications, develop web pages Using advanced server-side programming through servlets and Java server pages. 2. Demonstrate approaches for performance and effective coding 3. To learn database programming using Java 4. To study web development concept using Servlet and JSP
DSE-22F	ASP.NET	1. To learn practical aspects of multi-tier web based application development using the .NET framework. 2. To introduce the students to the basics of distributed Web application development.

DSE-23F	Linux Part-II	1. This course covers design principles of Linux Operating System Memory management. 2. Structure of File system and virtual file system is also elaborated. 3. This course contains details of shell programming and introduces System administration.
DSE -24F	Python Part-II	1. To learn how to write functions and pass arguments in Python 2. To learn how to build and package Python modules for reusability 3. To learn how to use exception handling in Python applications for error handling
B.Sc. Computer Science (Optional) Part-II Semester-III		
DSC –C 11	Web Technology	1) Understand the principles of web design. 2) Conduct basic websites using HTML and Cascdaing Style Sheets. 3) Bulid dynamic web pages with validation using JavaScript. 4) Develop modern web application that meets the current industry requirement.
DSC – C 12	Object Oriented Programming Using C++	1) Understand how C++ improves C with object oriented features. 2) Learn syntax and semantics of C++ programming language. 3) Learn how to overload function and operators in C++. 4) Learn hjow to design C++ classes for code reuse.
B.Sc. Computer Science (Optional) Part-II Semester-IV		
DSC – D11	Cyber Security Essential	1) Understand concept of information security management. 2) Learn different access controls methods. 3) Understand wireless network security. 4) Learn cyber security laws and importance of security audit.
DSC – D 12	Data Structure Using C++	1) Understand the basic concepts such as Abstract Data Types, Linear and Non Linear Data structures. 2) Ability to choose appropriate data structures to represent data items in real world problems. 3) Ability to analyze the time and space complexities of algorithms. 4) Ability to design programs using a variety of data structures such as array, stacks, queues, linked list 5)Able to analyze and implement various kinds of searching and sorting techniques.

B.Sc. Computer Science (Optional) Part-I Semester-I		
DSC –I	Problem Solving using Computers	1) Demonstrate a familiarity of computer programming language concepts. 2) Understand to develop C programs on Linux platform. 3)Apply C programming control structures for problem solving. 4) Understand working and implementation of arrays
DSC –II	Database Management System	1)Describe the basic concepts of DBMS and various databases used in real applications. 2) Demonstrate the principles behind systematic database design approaches
B.Sc. Computer Science (Optional) Part-I Semester-II		
DSC – III	Programming Skills Using	1)Understand the concept and importance of pointers in C language. 2)Demonstrate an understanding of functions in problem solving. 3)Understand working of structure and dynamic memory allocation. 4) Apply file handling techniques using C language.
DSC –IV	Relational Database Management System	1)Understand the importance and working of database. 2)Demonstrate an understanding of the relational data model. 3)Understand the concept of normalization and apply such knowledge to the normalization of a database. 4) Apply SQL queries for database management.