DEPARTMENT OF COMPUTER SCIENCE
SEMESTER-I
Programming in C
COURSE CODE: BS106

Course Outcome:

1. Know concepts in problem solving
2. To do programming in C language
3. To write diversified solutions using C language

<p style="text-align:center">**Semester-II**
Programming in C++</p>

COURSE CODE: BS206
Course Outcome:

1. To understand how C++ improves C with object-oriented features.
2. To learn how to write inline functions for efficiency and performance.
3. To learn the syntax and semantics of the C++ programming language.
4. To learn how to design C++ classes for code reuse.
5. To learn how to implement copy constructors and class member functions.
6. To understand the concept of data abstraction and encapsulation.
7. To learn how to overload functions and operators in C++.
8. To learn how containment and inheritance promote code reuse in C++.
9. To learn how inheritance and virtual functions implement dynamic binding with polymorphism.
10. To learn how to design and implement generic classes with C++ templates.
11. To learn how to use exception handling in C++ programs.

<div align="center">

Semester-III
Data Structures using C++

</div>

COURSE CODE: BS306

Course Outcome:

1. To impart the basic concepts of data structures and algorithms
2. To understand concepts about searching and sorting techniques
3. To Understand basic concepts about stacks,queues,lists,trees and graphs
4. To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures

Semester – IV
Database Management Systems
COURSE CODE: BS406

Course Outcome:
1. Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL.
2. Design ER-models to represent simple database application scenarios
3. Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data.
4. Improve the database design by normalization.
5. Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing.

COURSE CODE: BS505
Course Outcome:

1. Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods etc.
2. Understand the fundamentals of object-oriented programming in Java, including defining classes, objects, invoking methods etc and exception handling mechanisms.
3. Understand the principles of inheritance, packages and interfaces.

Semester – V
Operating System

COURSE CODE: BS506

Course Outcome:

1. Identify the role of Operating System. To understand the design of control unit.
2. Understanding CPU Scheduling, Synchronization, Deadlock Handling and Comparing CPU Scheduling Algorithms. Solve Deadlock Detection Problems.
3. Describe the role of paging, segmentation and virtual memory in operating systems.
4. Description of protection and security and also the Comparison of UNIX and Windows based OS.
5. Defining I/O systems, Device Management Policies and Secondary Storage Structure and Evaluation of various Disk Scheduling.

<p style="text-align:center">**Semester – VI**</p>
<p style="text-align:center">**COMPUTER NETWORKS**</p>

COURSE CODE: BS605

Course Outcome:

1. Describe the general principles of data communication.
2. Describe how computer networks are organized with the concept of layered approach.
3. Describe how signals are used to transfer data between nodes.
4. Implement a simple LAN with hubs, bridges and switches.
5. Describe how packets in the Internet are delivered.
6. Analyze the contents in a given data link layer packet, based on the layer con¬cept.
7. Design logical sub-address blocks with a given address block.
8. Decide routing entries given a simple example of network topology
9. Describe what classless addressing scheme is.
10. Describe how routing protocols work.
11. Use C programming language to implement network programs.
12. Design and implement a network protocol.

COURSE CODE: BS606

Course Outcome:

1. List the major elements of the PHP & MySQL work and explain why PHP is good for web development
2. Learn how to take a static website and turn it into a dynamic website run from a database using PHP and MySQL.
3. Analyze the basic structure of a PHP web application and be able to install and maintain the web server, compile, and run a simple web application.
4. Learn how databases work and how to design one, as well as how to use php MyAdmin to work with MySQL.
5. Learn different ways of connecting to MySQL through PHP, and how to create tables, enter data, select data, change data, and delete data. Connect to SQL Server and other data sources