SMT N P S GOVT COLLEGE (W),

CHITTOOR

DEPARTMENT OF COMPUTER SCIENCE

B.SC

(Revised on 2021-2022)

COURSE OUTCOMES

SEMESTER I: PROBLEM SOLVING IN C

Objectives:

This course aims to provide exposure to problem-solving throughprogramming. 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, Arrayprocessing, Pointers, etc.
5. Apply 'C' language constructs to the algorithms towrite a 'C' languageprogram.

SEMESTER II: DATA STRUCTURES USING C

Course Objectives

To introduce the fundamental concept of data structures and to emphasize the importance ofvarious data structures in developing and implementing efficient algorithms.

Course Learning Outcomes:

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

1. Understand available Data Structures for data storage and processing.
2. Comprehend Data Structure and their real-time applications - Stack, Queue, LinkedList, Trees and Graph
3. Choose a suitable Data Structures for an application
4. Develop ability to implement different Sorting and Search methods
5. Have knowledge on Data Structures basic operations like insert, delete, search updateand traversal
6. Design and develop programs using various data structures
7. Implement the applications of algorithms for sorting, pattern matching etc

SEMESTER III: DATABASE MANAGEMENT SYSTEMS

Course Objective:

The objective of the course is to introduce the design and development of databases with special emphasis on relational databases.

Course Learning Outcomes:

On completing the subject, students will be able to:

1. Gain knowledge of Database and DBMS.
2. Understand the fundamental concepts of DBMS with special emphasis on relational data model.
3. Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database
4. Model database using ER Diagrams and design database schemas based on the model.
5. Create a small database using SQL.
6. Store, Retrieve data in database.

SEMESTER IV:

C4-OBJECT ORIENTATED PROGRAMMING THROUGH JAVA

Objectives:

To introduce the fundamental concepts of Object-Oriented programming and to design &implement object oriented programming concepts in Java.

Course Learning Outcomes:

At the end of this course student will:

1. Understand the benefits of a well-structured program
2. Understand different computer programming paradigms
3. Understand underlying principles of Object-Oriented Programming in Java
4. Develop problem-solving and programming skills using OOP concepts
5. Develop the ability to solve real-world problems through software development in high-level programming language like Java

C5-OPERATING SYSTEMS

Objectives:

This course aims to introduce the structure and organization of a file system. It emphasizes various functions of an operating system like memory management, process management, device management, etc.

Course Learning Outcomes:

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

1. Know Computer system resources and the role of operating system in resource management with algorithms
2. Understand Operating System Architectural design and its services.
3. Gain knowledge of various types of operating systems including Unix and Android.
4. Understand various process management concepts including scheduling, synchronization, and deadlocks.
5. Have a basic knowledge about multithreading.
6. Comprehend different approaches for memory management.

7. Understand and identify potential threats to operating systems and the security features design to guard against them.
8. Specify objectives of modern operating systems and describe how operating systems have evolved over time.
9. Describe the functions of a contemporary operating system.

SEMESTER V:

DATA BASE MANAGEMENT SYSTEM

Course Objective:

Design & develop database for large volumes & varieties of data with optimized data processing techniques.

Course Outcomes

On completing the subject, students will be able to:

1. Design and model of data in database.
2. Store, Retrieve data in database.

SOFTWARE ENGINEERING

Course Objectives

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project.

Course outcomes

1. Ability to gather and specify requirements of the software projects.
2. Ability to analyze software requirements with existing tools
3. Able to differentiate different testing methodologies
4. Able to understand and apply the basic project management practices in real life projects
5. Ability to work in a team as well as independently on software projects

SEMESTER VI:

PAPER-VII: ELECTIVE-C - WEB TECHNOLOGIES

Course Objectives

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services. To provide skills to design inter active and dynamic web sites.

COURSEOUTCOME

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

1. To understand the web architecture and web services.
2. To practice latest web technologies and tools by conducting experiments.
3. To design inter active web pages using HTML and Style sheets.
4. To study the frame work and building blocks of NET Integrated Development Environment.
5. To provide solutions by identifying and formulating IT related problems.