

**GOVERNMENT DEGREE COLLEGE, MANDAPETA**  
**Department of Computer Science**  
**2021-22**

**Learning outcomes of Subject Computer Science:**

- Students will be able to communicate in written and oral forms in such a way as to demonstrate their ability to present information clearly, logically, and critically.
- Students will be able to apply mathematical and computing theoretical concepts in solution of common computing applications, such as computing the order of an algorithm.
- Students will be able to complete successfully be able to program small-to-mid- size programs on their own. Sufficient programming skills will require use of good practice, e.g., good variable names, good use of computational units, appropriate commenting strategies.
- Students will be able to use appropriately system design notations and apply system design engineering process in order to design, plan, and implement software systems
- In a self-selected area of depth in Computing, students will demonstrate a depth of knowledge appropriate to graduate study and/or lifelong learning in that area. Students should be able to read for understanding materials in that area beyond those assigned in coursework.
- Students will be prepared for a career in an information technology oriented business or industry, or for graduate study in computer science or other scientific or technical fields.
- Use systems development, word-processing, spreadsheet, and presentation software to solve basic information systems problems

**Semester – I: Paper: Problem Solving in C**

**Learning outcomes of Course:**

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

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

**Semester – II: Paper: Data Structures using C**

**Learning outcomes of Course:**

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

- Understand available Data Structures for data storage and processing.

- Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees and Graph
- Choose a suitable Data Structures for an application
- Develop ability to implement different Sorting and Search methods
- Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
- Design and develop programs using various data structures
- Implement the applications of algorithms for sorting, pattern matching etc

### **Semester – III: Paper: Database Management Systems**

Learning outcomes of Course:

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

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

### **Semester – IV: Paper: Object Oriented Programming using JAVA**

Learning outcomes of Course:

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

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

### **Semester – IV: Paper: Operating Systems**

Learning outcomes of Course:

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

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

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

### **Semester – V: Paper-V: Data Base Management Systems**

Course Outcomes On completing the subject, students will be able to:

- Design and model of data in database.
- Store, Retrieve data in database.

### **Semester – V: Paper-VI: Software Engineering**

Course outcomes

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

### **Semester – VI: Paper VII-C: Web Technology**

Course Outcome

- To understand the web architecture and web services.
- To practice latest web technologies and tools by conducting experiments.
- To design interactive web pages using HTML and Style sheets.
- To study the framework and building blocks of .NET Integrated Development Environment.
- To provide solutions by identifying and formulating IT related problems.